

# PRIMITIVE TRIBES OF ODISHA

AN ETHNO-DEMOGRAPHIC STUDY



**Nirmal Chandra Dash**

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2023

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Publisher



**Amadeus Press**  
112, Satyanagar  
Bhubaneswar

Cover & Laser Typing  
**Surjani, Baleswar**

1st. Edition - 2010

2nd. Edition - 2023

**ISBN-81-903813-3-4**

Printed at :  
Capital Business Service & Consultancy  
B-51, Sahid Nagar, Bhubaneswar

Price: Rs.500.00

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## PREFACE

About 105 million tribal people exist today in India. Most of them (nearly 90%) are listed in the 5th and 6th Schedule of the Constitution and are known as the Scheduled Tribes. Each tribe has its unique culture and are mostly distributed in the forest and hill tracks of the country. The techno-economic condition of majority of the tribes are poor. However, some of them are extremely poor and live in remote areas of different states. Considering the low techno-economic condition some Scheduled Tribes are categorized as Primitive Tribal Groups by the Central Government, now Particularly Vulnerable Tribal Groups (PVTGs)

In India there are as many as 75 Primitive Tribes numbering about 30 lakhs. Present book deals with Five Primitive Tribes out of the 13 belong to Odisha. These Primitive Tribes live in interior and less accessible hilly areas of North and Central Odisha. They follow their distinct culture and life style, although economically backward. Now many poor socio-economic and less educated people are far away from the modern health services. Needless to say, these communities continue to survive with their traditional knowledge and healing practices. This book reveals the Socio-economic, nutritional and reproductive health scenario of such Primitive Tribes. However, the latest Census on MoTA figures have been included in this volume.

The author is grateful to the UGC for the financial assistance for conducting the study under their Major Research Project. The Author is thankful to the entire Research Team. Thanks are also due to the publisher and the printer for showing special interest for this empirical description.

# INTRODUCTION

## 1.1 FOCUS

India is the second largest country in the world having a large population of Scheduled Tribes. The tribal populations of India constitute a significant proportion of India's total population. According to the Ministry of Tribal Affairs, Government of India 2022, a total of 705 tribal communities reside in our country. However, their population in 2011 was about 105 millions who constitute 8.6% of the total population of the country (MoTA 2022). India has the largest number of tribal communities in the world (Topal and Samal, 2001; Upadhyay and Pande, 2003). The vast majority of tribal populations reside in rural areas of the country. The tribal populations of India are recognized as socially and economically vulnerable (Ghosh and Bharati, 2006).

The forest and hill residing people were termed as **tribe** or **tribal** to differentiate them from other non forest people. Thus, the term tribe or tribal is a British legacy. The tribal people in India are known as “Adivasi” which stands for the original inhabitants. They are isolated from the general populations having their own physical, socio-economic and cultural environment. Most of these tribal populations across the country are faced with similar health conditions accentuated by widespread poverty, ignorance, illiteracy, malnutrition, poor environmental & personal hygiene and poor maternal & child health care practices. They are the most backward sections of the society. There is a general agreement that the health status of the tribal population in India is very poor. Their dietary pattern, social behaviour as well as their health behaviour are reflected by the deep rooted cultural traditions (Kar, 1993). Odisha has the largest number (62) of tribal communities. Tribal population of Orissa comprises of 22.85 percent (10.5 million) of the total population of the state (MoTA estimate 2022). The National Population Policy (2000) made special mention about the tribal areas in terms of improving basic health, reproductive health and child health services.

A general feature of the tribal population of the country is their exclusive geographical habitat. Traditionally, they were forest dwellers but now they live in more or less isolation.

In Demographic studies Reproductive health has been a recent thrust in most of the countries in the developing world; India is no exception. Reproductive health includes the age at marriage, reproductive performance, fertility regulation, care during pre-natal, natal & post-natal period, breast feeding and infant care practices etc.

As per the recent estimates of the World Health Organization out of the 200 million pregnancies that occur worldwide each year, about 23 million lead to serious complications & half a million of these end with a loss

of mother. Ninety nine percent of these deaths take place in developing countries. Each year about 3 million babies born in developing countries do not survive for more than a week, although infant mortality worldwide declined by 25 percent (WHO 2005).

Women are more vulnerable in the society, especially the poor tribal women who are more prone to the reproductive health problems such as pregnancy, delivery & post delivery complications. Side effects of contraceptive use and other reproductive health problems are also no less. To avoid these health problems, women should have health checkup like ante-natal check-up during pregnancy, natal and post natal check-up at the time of delivery and after delivery which would not only protect the health condition of the future born babies but also of the women. Further, health check-up for children (Immunization and other ailments) would maintain a good health status and better chance of survival of the children, which consequently would show a healthier demographic picture.

## **1.2 IMPORTANCE**

Health needs of the women as well as the important role that women play in promoting health and development have been the recent focus in the primary health care in India. According to WHO report, maternal mortality is the first cause of death of women of 25 to 34 years of age in over half of the developing countries. As a result of poor health and lack of appropriate medical services (including lack of access to safe means of fertility control), women bear an enormous risk every time they become pregnant. In the developing countries particularly in the tribal areas, access to maternity care is very poor (Kar, 1993).

Odisha is one of the socially and economically backward states of India. The poor reproductive health status of the tribal women is also reflected from the studies in Odisha (Rath et.al,1983; Ray and Rath, 1984, 1991;

Sahu, 1986; Swain et.al 1990; Basu and Kshatriya, 1997; Nanda, 2005a:b). Dash (1979) has highlighted that malnutrition, environmental factors and biological factors are responsible for lowering the period of fecundity among the Juang tribes of Orissa.

Since a handful of studies on demography and reproductive health have been carried out on the primitive tribes of Odisha, the present work has been taken up to evaluate the current demographic and reproductive health status of the primitive tribes of Odisha. The tribes covered in this project are the Lodha, Kharia, Mankirdia, Juang and the Bhuyan. The fertility and the morbidity status of the tribal women and the acceptance of the health care facilities were taken into consideration. The nutritional status of these primitive tribes is also evaluated. Finally efforts were taken to make them aware of the consequences of early marriage, the feeding & weaning practices and the need to adopt the available health care facilities.

### **1.3 RELATED STUDIES**

Women are the vital part of the Indian force and a major contributor of the family. The National Population Policy (2000), of the Government of India, typified by factors such as discrimination against the girl child and female adolescents, early age at marriage and high rates of maternal mortality, as an important barrier to the achievements of population and maternal and child welfare goals (Ministry of Health and Family Welfare, 2000). Studies on fertility and mortality trends among tribal population of India have been found to be fragmentary and isolated. Limited studies are available on reproductive health and hardly any study is available among the fertility regulation among the tribal population. However, a brief review of the available studies is discussed.

Several studies from India (Basu, A 1990; Basu, S 1990; Kar 1986, 1990; Rizvi 1986) reveal that socio-economic factors, socio-cultural variants like nutritional

practices and child rearing practices and socio-biological norms such as age at marriage, fertility decisions etc have tremendous impact on the fertility, morbidity and mortality patterns.

The continuation of ill health across generations results from a complex interplay of social, economic, cultural and biological factors. This cycle can be replenished at any point. Thus protecting the health of pregnant women, in turn, protects the health of the children and thereby the next generation of adult women (Kar, 1993). Singh (2006) shows that not only the biological aspect such as fecundity, fertility, morbidity and mortality but the social aspect which includes education & occupation also affects the fertility performance of a group.

Fertility is an instrument for biological continuance of human society. It is a biological phenomenon, though numerous social-cultural factors supposed to influence fertility level of a woman or a group of women. Saxena (1990) in his study conducted among Tharu and Buksa tribes of Uttar Pradesh reported that the Tharu and Buksa couples displayed a high level of fertility which has well reflected in the tendency to achieve higher order births even at younger ages. Several authors (Dyson and Moore, 1983; Basu, 1992) have carried out studies to search for the factors responsible for regional variations in fertility in India. Basu et al., (1993a) while conducting research investigation on 481 households among the Jaunsaris of Jaunsar Bawar, Dehradun found a crude birth rate of 42.67 per thousand populations and infant mortality rate of 79.64 per thousand live births. Visaria and Visaria (1995) described how fertility behaviour of women determined by number of social and biological factors. Sandhu (1996) in his study of Punjab had developed another model of fertility operationalized as under demographic variables, family action, general values and so on. Bhattacharya and Halder (2003) had described the rural fertility model with examples from rural West Bengal.

Odisha is rated as one of the measurable state so far the health care is concerned. Several studies (Basu, 1994; Sabat & Dash 1996; Nanda, 2005a;b) from Odisha reported on fertility and mortality aspects of reproductive health. Rath, Ray and Mohanty (1983) carried out a study on the delineation of fertility strategies in Koya tribal population of Koraput District, Odisha. They found that in spite of higher offspring mortality Koyas do not have a higher value of son survivorship. Basu and Jindal (1990) made an in depth survey of a primitive tribal group i.e. Kuttiya Kondhs of Tumdibandha block of Phulbani district, Orissa. The fertility record of Kuttiya Kondh mothers in various age groups indicated a total fertility of 5.0 estimated from the average fertility of the women in the group 45-49. Patel (1993), in his comparative fertility study among the Koyas and the Kondhs, writes that the total fertility rate of the later is higher (6.23) than that of the former (5.39). Khan (1993) while investigating the Dongria Kondhs of Odisha found average pregnancies per mother and the infant mortality rate as 4.07 and 153.11 respectively. Basu and Kshatriya (1997) concluded that the Kharias have higher fertility rate and infant mortality rate compared to the national average.

Nanda and Rob (2001) have observed that both at individual as well as population level, there are a number of small factors, which affect the fertility in differential magnitude and may be termed as the "Micro determinants". In a cultural set-up, many times the fertility of a married woman is altered after passing through a series of "Hierarchical Social Structures" viz. society, community, family and the husband (Nanda and Ram, 2003). Nanda (2005b) reveals that the cultural factors such as the population composition, distance from urban centres, community size, distribution and aborigine ness have some bearing on fertility.

Majority of the events in the process of human fertility operates more or less within a biological framework. Menarche is a biological term which was first

introduced by Kisch in 1910 (Biswas and Kapoor, 2004). The menstrual cycle is usually one of twenty eight days and the estimated blood loss is between 50 ml to 200 ml (Barua, 1996). Menarche is a clear indication of puberty and much of the adolescent growth spurt has already passed by the time of its onset (Prakash and Pathmanathan, 1992). It is not a final phenomenon of sexual maturation, but probably because of endocrine regulation is connected with other phenomenon of puberty and growth processes including influence on adult body size (Wolanski et.al, 1998).

Age of marriage affects the fertility of tribal women and thus the reproductive health behaviour in tribals differs from non-tribals. Age at marriage is an important social as well as demographic factor which influences the child bearing period and also determines the fertility of a community. Pathak and Ram (1993a) have stated that early marriage is highly negatively related to schooling of the young women. Yadav and Bhadari (1997) have observed that the customs and traditions attached with marriage system are expected to affect the exposure to the period of conception. Alam, et al. (1998) have concluded that early marriage was found to be associated with higher infant mortality. Kanitkar and Mistri (2000), with respect to age at marriage opined that strict implementation of the law for compulsory registration of births, deaths and marriages is needed to restrain child marriage. Though a determinant of fertility, age at marriage is influenced by education, economic status, socio-cultural beliefs and practices, urbanization, employment status etc (Caldwell et al., 1983; Srikantan, 1977; Choudhary and Devi, 1997; Maheo, 2004).

Antenatal care refers to pregnancy related health care provided by a doctor or a health worker in a medical facility or at home. The safe motherhood initiative proclaims that all pregnant women must receive basic professional antenatal care. The antenatal service includes supply of food supplements, provide health



education on antenatal care, breast feeding, child rearing and family planning (Yagnik, 1994).

The maternal health ensures good health of expectant mothers, especially on their nutritional status and avoiding complications of pregnancy. Regular antenatal care can mitigate the effects of pregnancy and complications of child delivery (Gilany, 2000; WHO, 1998). The non-use of antenatal service has a very high risk for increased maternal mortality. Mothers who had not received good quality antenatal care were found to be more at risk of having low birth weight babies (Nair et al., 2000) and there is a clear association between infant mortality rate and lack of poor quality antenatal care (Chandrasekhar et al., 1998). Ideally, this should begin soon after conception and continue throughout the pregnancy (Park and Park, 1991). Nayak and Babu (2001) have studied on the utilization of services for safe motherhood and antenatal care among the Scheduled Caste and Schedule Tribe of Odisha.

Basic antenatal care components are effective means to prevent a range of pregnancy complications and reduce maternal mortality (Pallikadavath et al., 2004). In countries such as India, poor service quality and inadequacies in the array of services are believed to be largely responsible for low levels of programme use (Bruce, 1990, Visaria & Visaria, 1992). Quality of care has several dimensions or components (Bruce, 1990; Jain, Bruce and Kumar, 1992).

Due to multi-dimensional factors safe motherhood is still a dream for much of India, particularly for its rural and tribal population. The goal of safe motherhood aims at maintaining the good health of the mother during pregnancy, which will enable her to produce healthy normal infant and to remain herself healthy (Bourne, 1972). Though the safe motherhood initiative has been given priority in recent years, maternal morbidity and mortality still remains a major public health issue in most developing countries (Weil and Fernandez, 1999). It is

estimated that 1600 women die worldwide every day as a result of problems during pregnancy or childbirth and the greater proportions of these deaths occur in developing countries (Shah et. al 1999, Jowett 2000). Complications of pregnancy and childbirth are still the leading causes of death and disability among women of reproductive age in developing countries (Maine and Rosenfield 1999).

Care during the postpartum period receives less attention from researchers than ante-partum and intra-partum care in many developing countries, even though it is the period during which most maternal mortality occurs (De silva 1998). Danel. et al. (1997) have reported that in El Salvador the incidence of significant morbidity during delivery was hemorrhage, fever, prolonged labour (over 24 hours), loss of consciousness, possible preeclampsia, and convulsions. From a study in Nepal, it was reported that delivery related problems included labour exceeding 18 hours, heavy bleeding and fainting (Smith 1996). Postpartum complications among the tribal and non-tribal of Jharkand were reported in the study of Maiti et al. (2005).

Nutritional status can be assessed by a number of ways such as anthropometry and dietary intake. World Health Organization (1995) has recommended that anthropometry could be used to access the nutritional and health status of adults. One such measure now in widespread use is Quetelet's index, which is body weight (in Kg) divided by stature (in m<sup>2</sup>) (Keys et al., 1972). Low BMI and high levels of under nutrition (based on BMI) are a major public health problem especially among rural underprivileged adults of developing countries (WHO, 1995). Although adult nutritional status can be evaluated in many ways, the BMI is mostly used because its use is simple, inexpensive, safe and suitable for large scale surveys (Lohman et.al, 1988; Ferro-Luzzi et.al, 1992; James et.al, 1994; Lee and Nieman, 2003). Thus BMI is the most established anthropometric indicator used for the

assessment of adult nutrition status (Lee and Nieman, 2003). A BMI < 18.5 kg/m<sup>2</sup> is widely used as a practical measure of chronic energy deficiency (CED), i.e. a “steady” underweight in which an individual is in energy balance irrespective of a loss in body weight or body energy stores (Khongsdier, 2005). Such a steady underweight is likely to be associated with morbidity or other physiological and functional impairments (James et.al, 1988; Shetty and James, 1994; WHO 1995). CED is caused by inadequate intake of energy accompanied by high level of physical activities and infections (Shetty and James, 1994; Shetty et al., 1994). It is associated with reduced work capacity (Pryer, 1993; Durnin, 1994), performance and productivity (Kennedy and Garcia, 1994), increased morbidity due to suppressed immune function (Garcia and Kennedy, 1994; Shetty and James, 1994; Strickland and Ulijaszek, 1994) and behavioural changes (Kusin et al., 1994).

Data are scanty on the anthropometric and nutritional status of various populations of India (Arlappa et.al, 2005; Bose and Chakraborty, 2005; Bose et.al, 2006a:b:c; Ghosh and Bala, 2006). However, several studies show the prevalence of high chronic energy deficiency among tribals across India (Ferro-Luzzi et al., 1992; Khongsdier, 1997; Adak et al., 2006a, 2006b). The poor living conditions also leads to high prevalence of chronic energy deficiencies among tribal communities of Odisha (Bulliya et al., 2004; Bose and Chakrabarty, 2005; Bose et al., 2006a; Bose et.al, 2006b).

Dietary intake also serves as the best indicator for accessing nutritional status. It is reported that the basic cause of under nutrition and infections in developing countries are poverty, poor hygienic conditions and little access to preventive health care (Mitra, 1985; WHO, 1998). Women among developing countries like India are under nourished (Samuel et al., 1992) and their dietary energy intake is not adequate to compensate their heavy physical workload. Several research studies on various

tribal populations living in different parts of India have found them socially and economically disadvantaged and their diets to be nutritionally deficient (Mittal and Shrivastava, 2006).

Bharati et al. (2007a) in their study have indicated that women with BMI less than 18.5 (CED) shows an increase risk of health problems especially during pregnancy and lactation. A higher rate of malnutrition in rural women is also evident from the study.

Few studies (Singh et al. 1987; Sharma and Sharma, 1991, 1992, 1993) reflect that malnutrition among tribal women has a multi-factorial an etiology and their consequence on fertility performance is also highlighted.

Tribal mothers have high rates of anemia, and specifically girl children are more undernourished (Maiti et al., 2005). It was also observed by her that the whole tribal community is deficient in adequate food intake.

#### 1.4 OBJECTIVES

The reproductive health of the tribal people of India, especially in the state of Odisha, is relatively a neglected area of demographic research. As per the literature survey, very few studies have been conducted covering the Reproductive Health, Nutritional Status and Demographic profile of the primitive tribes of Odisha. Keeping this in





view, the present project “Reproductive Health, Nutritional Status and Demographic profile of the Primitive Tribes of Odisha” is undertaken to evaluate the current status of these Primitive tribes with regard to the demographic profile, reproductive health and nutritional status of the five primitive tribes of North Odisha namely the Bhuyan, Juang, Kharia, Lodha and the Mankidia. The present study is undertaken with the following objectives.

1. To find out the socioeconomic status of the five Tribes.
2. To understand the current demographic profile of each tribe.
3. To assess the Reproductive health and the fertility performance of the Tribes.
4. To study the morbidity status of these tribes associated with pregnancy and post-natal period.
5. To assess the nutritional status of each tribe by Body Mass Index (BMI).

#### **1.4 METHODS ADOPTED**

Methods or the designs of study is an indispensable part of any scientific investigation. Starting from the selection of village to the completion analysis is described here.

##### **1.4.1 Village Selection**

The villages covered in the present study are situated on the belt of Northern Odisha. Five primitive tribes of three districts of northern Odisha (Mayurbhanj, Keonjhar and Angul) are taken under study. The villages were selected considering their accessibility and dominance. Though other tribes and castes are living together in the selected villages, the study was conducted only on five “primitive tribes” of northern Odisha. Ethnic group-wise stratification of the population of the villages was followed to maintain the ethnicity of the tribe.

Keeping the objectives in view, the study was designed to focus on the fertility performance and reproductive health of the women, the nutritional status and the demographic profile of the five primitive tribes of northern Odisha.

##### **1.4.2 Household Coverage**

Five primitive tribes namely the Bhuyan, Juang, Kharia, Lodha and the Mankidia of three main districts of northern Odisha (Mayurbhanj, Keonjhar and Angul) are selected for the present study. Five tribes (Lodha, Mankidia, Kharia, Juang and Bhuyan) from 46 villages

are covered in the present empirical study. All the selected villages are within 14 blocks of the three (Mayurbhanj, Keonjhar and Angul) districts of Odisha. The total households covered in all the selected villages are Bhuyan (448), Juang (515), Kharia (460), Lodha (524), Mankirdia (156), and . The households covered were on the basis of their availability during data collection.

**Table 1.4.2: Total household coverage of the five tribes**

No. of Tribes	Total No. of Districts covered	Total No. of Blocks covered	Total No. of Gram Panchayats covered	Total No. of villages covered	Total No. of Households covered
5	3	14	26	46	2103

The study on reproductive health was carried out only on the ever married women of the reproductive age group (15-49 years). In the analysis of the Nutritional status, both the male and the female were considered because pregnancy is a two-way phenomenon. The demographic profiles of the tribes were also studied individually.

### **1.4.3 Data Collection**

The survey was designed to collect data on different household information, Demographic profile, Reproductive health and Nutritional status of the five primitive tribes. Thus an extensive schedule was prepared and it was canvassed in order to test the response and reliability prior to the actual survey. Households with at least one ever married woman, in the reproductive age group, were selected for the study.

Data on household information, Reproductive health, anthropometric measurements and certain qualitative data pertaining to demographic and socio-cultural variables were collected on the pre-tested schedules. The head of the households were interviewed for the household data and the ever married women of

the reproductive age group (15-49 years) were interviewed for the reproductive health data and when required their husbands were also interviewed for confirmation and clarification. The data on nutritional anthropometry were also collected. Thus all the reproductive ever married women (EMW) and their present husbands were the respondents of this study.

Mostly interview method was adopted for data collection. However, case-study and non-participant observation methods were also adhered to. A self administered survey was carried out that included the reproductive information and questions about functioning and availing of the primary health care centre. The Primary Health Centre (PHC) was visited to access their facilities, logistics, equipments and staffing levels. A discussion with ANM and LHV was conducted to ensure about quality of the health services being provided to the tribal women. Beside quantitative data on Reproductive Health (Reproductive performance and Reproductive & child health care practices), qualitative data were also collected through Focus Group Discussions (FGDs).

Data on nutritional anthropometry were collected from both the men and the women. Height and weight were measured following the standard procedures, using a stature meter for height and weighing machine for weight. The anthropometric data (Height and Weight) were collected only from those men and women who were willing to give their measurements.

#### **1.4.4 Data Analysis**

The data after collection were processed and analyzed in accordance with the outline laid down for the purpose. This is essential for a scientific study and for ensuring all data are relevant for comparisons and analysis. The term analysis refers to the computation of certain measures, calculations of percentages, etc and searching their relationship with the existing data groups.



#### 1.4.5 Nutritional Anthropometry

The height and weight of the individuals were measured and were recorded to the nearest 0.1 cm and 0.5 kg respectively. Body mass index (BMI) was computed using the following standard equation.

$$BMI = \text{weight (kg)} / \text{Height (m}^2\text{)}.$$

Nutritional status was evaluated using internationally accepted BMI guidelines (WHO, 1995). The following cut-off points were used.

*CED grade III: BMI < 16.0 (Severe)*

*CED grade II: BMI = 16.0-16.9 (Moderate)*

*CED grade I: BMI = 17-18.4 (Mild)*

*Normal: BMI = 18.5- 24.9 (Normal)*

*Overweight: BMI = 25.0-30.9 (Overweight)*

*Obese: BMI > 31 (Obese)*

## THE BHUYAN

### 2.1 The Tribe

Bhuyans are one of the primitive tribes of Odisha and are found mainly in the Bhuyan Pirh of Keonjhar district. They are also found in large numbers in the adjoining states of Bihar, Bengal and Assam. S.C. Roy has divided the tribe into two broad sections. The southern section, centred in Odisha, is the backward section of the tribe while the northern section, centred in Chottanagpur, contains the relatively advanced section of the tribe.

S C Roy has recorded the following sections of the Bhuyan community. These are Des Bhuiya or Mal Bhuiya, Paraja Bhuiya or Routali Bhuiya, Bathudi Bhuiya, Santali Bhuiya, Dandasena Bhuiya, Rajkuli or Bar Bhuiya, Saontia Bhuiya, Khandait or Pawanbans Bhuiya, Katti Bhuiya, Naksiya Bhuiya, Aake Bhuiya, Dake Bhuiya, Reichisan Bhuiya, Mushar Bhuiya and Ghatwar Bhuiya. Some of these sections are just

descriptive names, while some others are designated on the basis of their mythical origin.

### **2.1.1 Physical Feature**

Bhuyans are considered as a branch of the Munda group. They are medium statured people. The average heights is 160 cm for males and 154 cm for females. Skin complexion is brown to dark brown. Body medium built. Scanty hair on body and face. Hair form wavy. Mongolian eye fold is not marked.



### **2.1.2 Population & Distribution**

The Bhuyan population in Odisha in 2011 Census was 3,06,129, of which 1,51,497 were males and 1,54,650 were females. During 2001 and 2011 their population has registered a growth rate of 10.35 percent. The sex ratio among them is 1021 females per thousand males in 2011 census

In Odisha the Bhuyans are found in Bansapal Block of Keonjhar district and the adjoining areas of Pallahara subdivision of Angul district and Bonai subdivision of Sundargarh district. The name 'Bhuyan' may be derived from the Sanskrit word 'Bhumi', meaning land or earth. The tribe is also called variously as Bhuiya, Bhuiyan and Bhuiya.

Bhuyan Pirh, the main concentrated pocket of the Bhuyans, lies roughly between 21°O and 22°O north latitude and 85°O and 86°O east longitude. The blocks of hills and elevated valleys which stretch from north to south along



Authors visit to Jamardiha, Pallahara

the western borders of Keonjhar and join Bonai subdivision of Sundargarh district on its north-eastern side form the homeland of the primitive sections of the Bhuyans. This tract is the watershed of the Baitarani river in the north and the Brahmani river in the south. The national



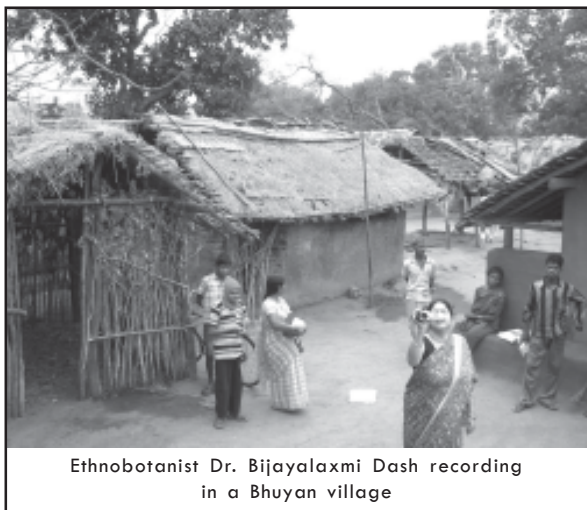
Economist Dr. S.K. Sahu with an NGO worker at Pallahara

highway running through the blocks of hills of upper Keonjhar separates the habitat of the Bhuyans from that of the Juang. The Juang Pirh, with its centre at Gonasika, lies to the east, while the Bhuyan Pirh, with its centre at Bansapal, lies to the west of the upper Keonjhar.

The approach to the Bhuyan villages located in this region is very difficult, particularly in rainy season, due to lack of adequate road communications. Moreover, the jungles, which once teemed with many wild animals such as tigers, bisons, elephants bears and wild boars, have now been completely deprived of any such fauna, due to the continued depletion of dense forest.

### **2.1.3 Village**

The Bhuyan hamlets or villages are situated either on plateau land on the hilltops or else on the hill slopes in the middle of the forest. The villages are generally small in size and contain a homogeneous Bhuyan population. The settlement patterns of the villages are not identical and do not conform to any pattern. In a village some houses

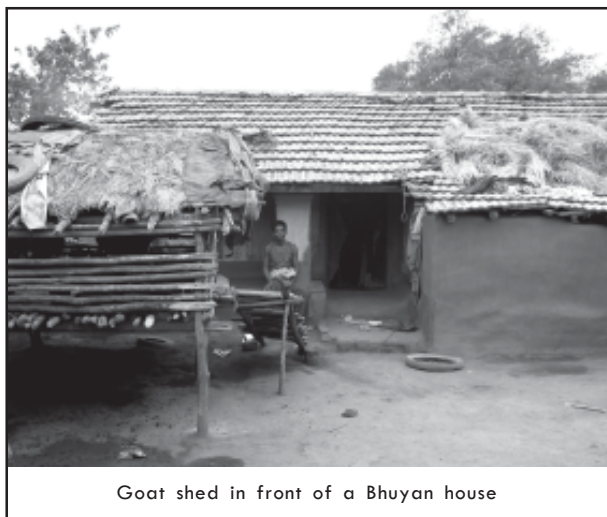


may be built adjacent to one another in rows facing a street which runs in between them, while other houses may be located here and there in the uneven terraces. There is usually a courtyard at the front of the house and a kitchen garden at the back. The cowshed is constructed at a convenient place on one side of the courtyard. Like the Juangs, the Bhuysans have well-maintained youth dormitories known as *Mandaghar* or *Darbarghar* for the

unmarried boys, usually constructed in the centre of the village. The dormitory also serves as a guesthouse, meeting place for elders and a granary for the village. Important musical instruments like the *Changu* (tambourine) and drums are kept hanging from the extended deer antlers fixed to the walls. In front of the dormitory is an open space which serves as a dancing area for the unmarried boys and girls of the village. On one of the corners of the dancing area, at a little distance, lies the sacred shrine of *Gainsiri Khunta*, made of a round piece of carved wooden pillar and representing the protective deity of the village.

#### **2.1.4 House and Household Articles**

A Bhuyan house is rectangular in ground plan with two sloped roofs thatched with grass. The average size of the house is 25 ft by 12 ft. The walls of the house are



made up of wooden logs thickly plastered with mud and cow dung on either side. The rafters and beams of the roof are made up of wooden logs, and the roof is thatched with a kind of wild grass called *Khar*. Some well-to-do families who can afford them have houses thatched

with tiles made by themselves. The house has a single door which is made either of wooden planks or of bamboo splits plastered with mud and cow dung on either side. The house has no window. A piece of rope is used to close the bamboo door, but in the case of the wooden door, the locking arrangement is made by fixing an iron chain to the door and a hook on the doorframe.

The material contents of the Bhuyan house exhibits a very poor picture, from which the economic condition of the tribe can be assessed. House articles consists mainly of different types of earthen vessels, jars, gourd containers, palm leaf mats, string cots, wooden headrests, a leaf umbrella, broom, bamboo baskets of different sizes, a winnowing fan, a mortar and pestle, a grinding stone, small and large axes, a few knives, a ploughshare, a digging stick, a hoe, a bow and arrow, a kerosene lamp, and a grain bin made from straw. Except for the earthenware vessels and iron implements, which are purchased from local market, the other articles are self made.

### **2.1.5 Food and Dress**

Rice is their staple food and is considered superior to all other types. Whatever amount of paddy is produced it is never sold. Otherwise they exchange birhi and niger for rice. Besides rice they make preparations of millets and other cereals. They eat pulses occasionally, particularly on festive occasions. Roots, tubers, flowers and fruits, which are collected from forest, supplement their food to a great extent during the lean months.

Among alcoholic drinks the Bhuyans drink *mahua* liquor, a rice beer called *pachhi*, toddy extracted from date palms, salap drink extracted from sago palms, and liquor prepared from cereals. The Bhuyans are used to both chewing and smoking. Men smoke tobacco grown in kitchen gardens by rolling it in sal leaves, while women chew it with lime. *Bidi*, tobacco paste (*gudakhu*)

and betel are purchased in the local market and consumed.

As regards the dress of the Bhuyans, they wear almost similar cloths as those of their Juang neighbours. Dhoti for man and sari for women are common. Very rarely they use under garments. Ornaments made of brass, silver and beads are commonly noticed. Boys wear half pants and banians. Girls normally use frocks, skirt and blouse.

### **2.1.6 Religion and Festivals**

The Bhuyans believe in the existence of innumerable deities having their abode in the village and nearby spring and in the surrounding hills and forest. They influence the life of the people and the course of events in the village. Success, failure, death, disease and the well being of the individual and of the society depend upon the mental condition of these supernatural powers. In order to ensure safety, security and prosperity these supernatural beings are propitiated with timely offerings of food and drink by the religious headman of the village.

Like many other tribal groups of the area, the Bhuyans have two high ranking Gods known as *Dharam Devta* (Sun God) and *Basukimata* (Earth Goddess) who are always benevolent. These supreme beings are not represented in any form but they are constantly remembered, and whenever any religious ceremony is performed, individually or collectively, they are worshiped properly.

### **2.1.7 Economic Pursuit**

The economic life of the Bhuyans mainly centres on shifting cultivation, which is the primary source of their livelihood. To a large extent this is supplemented by the collection of minor forest produce and wet and dry cultivation, and by hunting, fishing and wage earning. Other than those mentioned above, some Bhuyan, particularly those living in the plains, have taken to petty



trade and commerce and industrial employment. Rope-making and ordinary carpentry are known to all men, and mat-making is the recreational activity of the Bhuyan women. The Bhuyans follow a sexual division of labour for certain activities. Generally heavier work, such as cutting trees, plough, sowing, hunting and fishing, fall on the shoulders of the men, while lighter work, such as cooking and other domestic work, are the monopoly of the women; thatching houses and climbing trees are taboo for them. Work like clearing the forest, weeding, transplanting, harvesting, threshing, and the collection of minor forest produce are undertaken by both men and women.

The Bhuyans are in the habit of collecting minor forest produce extensively for their own consumption and also for sale as a secondary source of income. The important items of forests collection include *mohua* flowers,



*mohua* seeds, mango, jackfruit, tamarind, *harida*, *amla*, sal seed, *kusum*, various types of green leaves, mushrooms, edible roots and tubers. They also collect firewood, thatching grass, fibers for rope-making and different types of herbs and shrubs of medicinal value.

### **2.1.8 Political Organisation**

The primary functions of the village panchayat are to decide the partition of property among brothers, to distribute land for shifting cultivation, to organize religious ceremonies, and to maintain peace and order in the village. In the earlier days *pradhan* and *sardar* were very powerful and men of authority. They used to collect land revenue from the ryots and maintain law and order in their respective areas of jurisdiction. Since independence and the abolition of intermediary system and merger of the feudatory states with Odisha these traditional political organizations have been weakened. The introduction of the statutory panchayat has further weakened the old political order and *piddha* organization.

### **2.1.9 Bio Social Tradition**

#### **a) Marriage**

The Bhuyan observe clan (*khilli*) and village exogamy if the village is inhabited by one *khilli*. In the past, marriage within the village was forbidden because the people of a village were agnates and belonged to a single *khilli*. The types of marriage prevalent among them are marriage by elopement (*dharipala*), marriage by capture (*ghic ha*), love marriage (*phulchusi*, *amilesare*, *kalalesare*) and marriage by negotiation (*magni bibha*), etc. The most common type is marriage by capture (*ghicha*). Instances of marriage by elopement (*dharipala*) and negotiation (*magni bibha*) are not unusual. Widow marriage is also prevalent in the society. They do not recognize cross-cousin marriage as a preferential form of marriage. Likewise levirate and sororate marriages are not practiced in their society. An arranged marriage involves the payment of a heavy bride price and expenditure on feasts given to the guests, agnates and cognates who attend the marriage ceremony. Bride wealth varies depending upon the economic price of cloth. Ritually 1 rupee is

given to the bride's mother. Further, about 160 kgs of rice and a he-goat are given for the feast. In the case of other types of marriage, the bride price is also paid but at a much reduced rate.

**b) Family**

The family, being patrilineal, is the smallest social unit and comprises both consanguineal and affinal relations. As the family is patrilineal, descent is traced through the male line from father to son. A daughter belongs to her father's clan so long as she is unmarried, but after marriage she becomes a member of her husband's clan. The family is mostly nuclear, consisting of husband, wife and their unmarried children. In some cases dependents, like parents or unmarried brothers and sisters, are also found living with the nuclear family. Extended or joint families are rarely noticed.

**c) Birth**

The Bhuyans believe that every human being must pass through different events in life such as birth, childhood, adulthood, old age and death. Unnatural deaths are attributed either to the wrath of the Gods and Goddesses or to a sin committed by the person during his previous birth. They look down on barren women, and those women who give birth to many children enjoy considerable pride and prestige. Birth is always welcome in Bhuyan society, whether of a boy or a girl. The expectant woman undergoes several restrictions during her pregnancy. She is not allowed to eat the meat of any sacrificial animal. She does not take curd or anything that tastes sour. She is not allowed to go to the place of worship or to forest alone. She should not touch a corpse, nor see the smoke from a cremation fire. Birth takes place in a separate shed constructed as a lying-in room. An elderly experienced woman is called to act as a midwife. The naval string is cut by the baby's mother with an

arrowhead (for male child) or with a split bamboo (for female child). The placenta and the cord are buried in a pit dug at the back of the house. The midwife bathes the baby and the mother using worm water and fomates them by Lightening a fire inside. The mother observes certain restrictions in respect of her food intake for some time during the post delivery period. The pollution continues for one to two months which is removed in a phased manner. They carry out name-giving and first hair cutting ceremonies normally within one year.

#### **d) Death**

The Bhuyans believe that a human being has to die one day or other after being very old. News of a death is immediately conveyed to the kinsmen and other elder members of the village. They practice both burial and cremation along with loud lamentations of the family members and kinsmen. It is believed that if the relatives do not lament for the dead, the latter may feel offended in the other world. A pit above seven feet long and five feet deep is dug, and the dead body is laid down in it with the head pointing north. The eldest son and in its absence, the brother of the deceased puts the first handful of earth over the corpse after which the pallbearers fill up the pit with earth. Boulders, stones and thorny branches are then put on the grave. Death pollution is observed for two to three days. However, cremation is done with dried wooden logs in a selectd place and the eldest son sets fire. At the end of it, the villagers are given a feast by the deceased's family. The lineage members clip their hair, shave their beards and pave their nails. The olden earthenware vessels are thrown away and replaced by new ones.

**Table 2.1.1: Total household coverage of the Bhuyans**

<b>Blocks covered</b>	<b>Gram Panchayats covered</b>	<b>Villages covered</b>	<b>Households covered</b>
2	5	10	448

## 2.2 SOCIO-ECONOMIC CHARACTERISTICS

The important characteristic features of this tribe which distinguish them from the general population are discussed in this section.

### 2.2.1 Age Group

The demographic and health seeking behavior is more or less associated with several characteristics such as age, marital status, etc. The following table shows the age sex distribution of the respondents.

**Table - 2.2.1: Distribution of the population under study by age group**

Age Group in years	Male		Female	
	No	%	No	%
15-19	-	-	72	16.1
20-24	76	19.9	52	11.6
25-29	80	20.9	100	22.3
30-34	72	18.8	84	18.8
35-39	54	14.1	60	13.4
40-44	30	7.9	48	10.7
45-49	36	9.4	32	7.1
49+	34	8.9	-	-
Total	382	100	448	100

Table 2.2.1 Highlights the age-sex composition of this tribe from the age-group 15 to 49 years. The table shows that maximum percentage of respondents, male (20.9%) and female (22.3%) are in the age-group 25-29 years. Obviously there are no male respondents (husbands) of below 19 years of age. However, nearly 16% female respondents are in the age group of 15-19 years. This shows that the females marry well below the age of 18 years.

### 2.2.2 Marital Status

The marital status provides the fundamental information regarding the vulnerable section responsible for the fertility. The data in table 2.2.2 states the marital status of the female respondents. The study reveals that nearly 85% of the female respondents are currently married at the time of survey.

**Table - 2.2.2: Distribution of women by marital status**

	Female			
Status	Married	Widowed	D/S	Total
Number	382	48	18	448
Percent	85.3	10.7	4.0	100%

### 2.2.3 Housing Pattern

Some houses are built adjacent to one another in rows while others are scattered here and there and the settlement pattern is not identical. Majority of the houses of the study area are constructed with mud wall (97.3%) and floor (97.3%) while the roof is made of tiles (92.0%). Some small straw thatched huts (8.0%) are also seen.



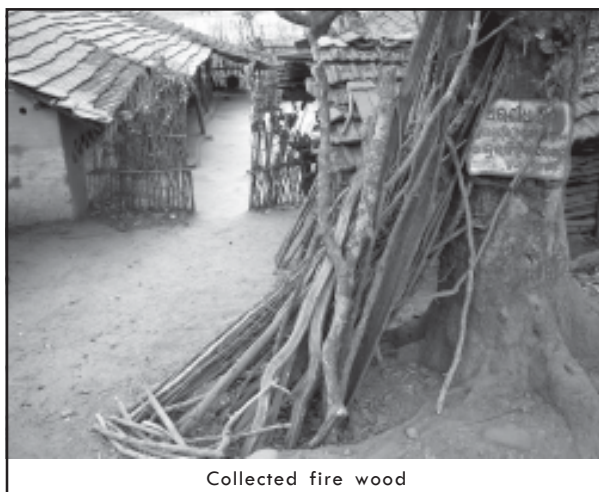
Respondants waiting for measurements

**Table – 2.2.3: Housing pattern of the population**

Roof material			Wall			Floor		
Category	No	%	Category	No	%	Category	No	%
Thatched	36	8.0	Mud	436	97.3	Mud	436	97.3
Tiles	412	92.0	Brick + mud	-	-	Cement	12	2.7
Asbestos	-	-	Brick + cement	12	2.7	-	-	-
Total	448	100	Total	448	100	Total	448	100

### 2.2.4 Lifestyle Indicators

The life style indicators reflect the socio-economic status of this tribe. The socio-economic status directly or indirectly influences the reproductive health of the women as also the nutritional status of the tribe.



Collected fire wood

**Table – 2.2.4a: No of living rooms**

No of living rooms	Number	Percentage
1	380	84.8
2	47	10.4
3	16	3.6
>3	5	1.2
Total	448	100

The majority of the houses have all purpose single room (87.8%). Some well to do families have multi-roomed houses with spacious courtyards.

**Table – 2.2.4b: Kitchen garden/Kitchen room/Fuel used**

Kitchen garden				Kitchen room				Fuel used			
Yes		NO		Yes		NO		Dry stick		Wood	
No	%	No	%	No	%	No	%	No	%	No	%
24	5.4	424	94.6	21	4.6	427	95.4	322	71.8	126	28.2

Most of the houses of the Bhuyans do not have kitchen garden (94.6%) and separate kitchen rooms (95.4%). Only few houses have kitchen garden fenced with vertical bamboo poles and also a separate kitchen room. Table 2.4 (b) also reveals the fuel used for cooking by the Bhuyans. Since they live in semi forest areas, they utilize the Jungle for collecting dry stick and wood. 71.8 % of this tribe depends on dry stick for fuel.



Majority of the villages have well and tube-well which shows that ground water level is relatively high in



this areas. 54.5% depend upon tube-well for drinking water while 34.8% depend upon well and only 10.7% depend upon stream for drinking water.

Majority of the Bhuyans do not possess any transport (77.7%) and only 21.4% possesses a cycle. The households who do not have any transport either do not feel the need of any transport or cannot afford for the same. The possession of electronic items reflects the poor economic status of the tribe. The table shows that majority of the households do not have any electronic item (93.7%).

**Table – 2.2.4c: Source of drinking water**

Stream		Well		Tube-well	
No	%	No	%	No	%
48	10.7	156	34.8	244	54.5

**Table - 2.2.4d: Transport/Electronic item**

Transport			Electronic item		
Item	No	%	Item	No	%
Cycle	96	21.4	Radio	20	4.5
Bike	4	0.9	Television	8	1.8
Nil	348	77.7	Nil	420	93.7
Total	448	100	Total	448	100

### **2.2.5 Economy**

The occupation or main earning source and the monthly family income reflects the economic status of this tribe. The following table shows the main earning source of the respondents.

**Table - 2.2.5a: Main earning source**

<b>Male</b>			<b>Female</b>		
Occupation	No	%	Occupation	No	%
Unemployed	21	5.4	Unemployed	416	92.9
Cultivator	245	53.6	Cultivator	16	3.6
Annual labour	48	12.5	Daily labour	16	3.6
Daily labour	98	25.8	-	-	-
Private job	7	1.8	-	-	-
Govt job	3	0.9	-	-	-
Total	382	100	Total	448	100

Table 2.2.5a reflects the main earning source of the male and the female respondents. Most of the males are engaged as cultivator (53.6%) and daily labour (25.9%) while most of the females are unemployed (92.9%). However, females do all the household work and often go to forest for wood collection

**Table – 2.2.5b: Monthly family income**

<b>Family income (in Rupees)</b>	<b>Number</b>	<b>Percentage</b>
< 1000	212	47.3
1001-2000	220	49.1
2001-3000	4	0.9
>3000	12	2.7
<b>Total</b>	<b>448</b>	<b>100</b>
Average family income – Rs 1312.50/-		

The Bhuyan family income is reasonably low as evident from the table 2.2.5b. Majority of the households (49.1%) have family income between Rs (1000-2000) and less than 1000/-(47.3%) The average family income as calculated is Rs 1313/-.

### **2.2.6 Educational Status**

Educational status of the Bhuyan respondents are presented in the following table.

**Table - 2.2.6: Educational status**

Male			Female		
Educational status	No	%	Educational status	No	%
Illiterate	242	63.4	Illiterate	416	92.9
Lower Primary	41	10.7	Lower Primary	16	3.6
Upper Primary	62	16.1	Upper Primary	12	2.7
Middle Exam	16	4.4	Middle Exam	4	0.9
High School	21	5.4	High School	-	-
+2	-	-	+2	-	-
+3	-	-	+3	-	-
<b>Total</b>	<b>382</b>	<b>100</b>	<b>Total</b>	<b>448</b>	<b>100</b>

Table 2.2.6 reflects the educational status of both the male and female respondents. It is found that 63.4% male and 92.9% female respondents are illiterate. Thus the literacy rate of this tribe is found to be very low, particularly the adult female literacy is very low only 8% (in the age group of 15-49 years).

## 2.3 REPRODUCTIVE HEALTH

Reproductive health behavior includes behavior related to marriage, maternal & child healthcare, family planning practices, nutritional status of the women etc.



Woman health centre at Jamardiha.

### 2.3.1 Age at Menarche

Age at menarche is one of the important biological determinants of fertility.

**Table - 2.3.1: Age at menarche of the Ever Married Women (EMW)**

<b>Age at menarche in years</b>	<b>Number of EMW</b>	<b>Percentage</b>
10	-	-
11	52	11.6
12	48	10.7
13	200	44.6
14	44	9.8
15	60	13.4
16	24	5.4
17	-	-
18	20	4.5
<b>Total</b>	<b>448</b>	<b>100</b>
Mean age at menarche – 13.4 years		

The mean age at menarche of the Bhuyan women is found to be 13.4 years. Maximum percentage of the women (44.6%) attain menarche at the age of 13 years. It is interesting to note that the menarcheal age of 4.5% women is 18 years which is noticeably late.

### 2.3.2 Age at Marriage

**Table – 2.3.2: Age at marriage of the Ever Married**

<b>Age group in years</b>	<b>Women (EMW) Number of EMW</b>	<b>Percentage</b>
< 13	8	1.8
13-15	100	22.3
16-18	192	42.9
19-21	148	33.0
<b>Total</b>	<b>448</b>	<b>100</b>
Mean age at marriage – 17.25 years		

The mean age at marriage of the Bhuyan women is found to be 17.25 years. Table 2.3.2 shows that maximum percentages of women (42.9%) get married between 16 to 18 years. It is also observed that only 1.8% women get married below 13 years of age which is little early.

### 2.3.3 Age at 1st Conception

**Table – 2.3.3: Age at 1st conception of the Ever Married Women (EMW)**

<b>Age group in years</b>	<b>Number of EMW</b>	<b>Percentage</b>
< 13	3	0.7
13-15	81	18.1
16-18	146	32.6
19-21	218	48.7
22-24	-	-
<b>Total</b>	<b>448</b>	<b>100</b>
Mean age at 1st conception – 17.8 years		

The mean age at first conception is found to be 17.8 years. This shows that the gap between age at

marriage and age at first conception is nearly six months. Thus as observed from the table also maximum percentage of women (48.7%) conceive between 19 to 21 years.

### **2.3.4 Age at 1st Child Birth**

**Table – 2.3.4: Age at 1st child birth of the Ever Married Women (EMW)**

<b>Age group in years</b>	<b>Number of EMW</b>	<b>Percentage</b>
<13	-	-
13-15	37	8.3
16-18	103	23.0
19-21	308	68.7
22-24	-	-
<b>Total</b>	<b>448</b>	<b>100</b>
Mean age at 1st child birth – 18.8 years		

Table 2.3.4 reveals the mean age at first child birth of the Bhuyan women which is 18.8 years. The gap between the mean age at first marriage & the mean age at first childbirth is 1.5 years which further confirms the fact that average women conceive after six months of marriage.

### **2.3.5 Fertility Performance**

Human fertility is responsible for the biological replacement and maintenance of the human species. Table 2.3.5 presents the fertility performance of the ever married women. The total number of conceptions, uterine wastage (abortion and stillbirth) and live-births are some of the major findings of the study.

**Table – 2.3.5: Fertility performance of the Ever Married Women (EMW)**

Number	Conception		Abortion		Stillbirth		Live-birth	
	No of EMW	%	No of EMW	%	No of EMW	%	No of EMW	%
0	31	6.9	356	79.5	387	86.4	38	8.5
1	66	14.7	75	16.7	50	11.2	96	21.4
2	88	19.6	17	3.8	11	2.4	91	20.3
3	77	17.2	-	-	-	-	86	19.2
4	90	20.1	-	-	-	-	73	16.3
5	72	16.1	-	-	-	-	57	12.7
6+	24	5.4	-	-	-	-	7	1.6
Total	448	100	448	100	448	100	448	100
Total no of	Conception –1337		Abortion – 109		Stillbirth – 72		Livebirth –1155	
Mean (per woman)	2.98		0.24		0.16		2.58	

The total number of conception of the 448 Bhuyan women is found to be 1337 and thus the mean conception per women is 2.98. The conceptions terminating before birth are taken as uterine wastage (Abortion + Stillbirth). In this population the uterine wastage is found to be 0.40 which is little high. It is further noticed that the total number of live-births of the women is 1155 and thus the mean live-births per woman is 2.58.

### **2.3.6 Antenatal Care**

Antenatal care refers to pregnancy related health care provided by a doctor or health worker in a medical facility or at home.

**Table - 2.3.6a: Antenatal checkup received**

Antenatal checkup received				Antenatal checkup not received	
Number		Percentage		Number	Percentage
219		48.9		229	51.1
Iron Folic Acid (IFA)		Tetanus Toxoid (TT)		-	-
No of EMW	%	No of EMW	%	-	-
210	46.9	212	47.3	-	-

Table 2.3.6a highlights the acceptance of the maternal care services provided by the Government. 48.9% women received antenatal checkup where as 51.1% did not receive any antenatal checkup. It is also observed that 46.9% of the women have taken IFA tablets and 47.3% of the women have taken at-least one TT vaccine.

**Table – 2.3.6b: Reasons for not availing antenatal checkup**

<b>Reasons for not availing antenatal checkup</b>	<b>Number of EMW</b>	<b>Percentage</b>
Not required	296	66.1
Elders did not allow	89	19.9
Non availability of staff	-	-
Timing of PHC not suitable	-	-
No supply of medicine	-	-
Any other reason	-	-
No response	63	14.0
<b>Total</b>	<b>448</b>	<b>100</b>

There are several reasons reported by the women for not availing any antenatal checkup. Maximum percentage of women (66.1%) reported that it is not required and pregnancy is a normal phenomenon while 19.9% of the women reported that elders did not allow.

### **2.3.7 Natal Care**

One of the important major thrust areas of the RCH programme in India is to encourage and promote deliveries under proper hygienic conditions and under the supervision of trained health professionals.

**Table – 2.3.7a: Place of delivery**

<b>Place of delivery</b>	<b>No of EMW</b>	<b>Percentage</b>
Home	293	65.4
Hospital	155	34.6
<b>Total</b>	<b>448</b>	<b>100</b>



Table 2.3.7a shows that due to the various schemes of Government for promoting institutional delivery, 65.4% women have home deliveries and 34.6% go for institutional delivery. Thus it is seen that good number of women of this tribe go for institutional delivery.

**Table – 2.3.7b: Birth assisted by Doctor/ANM/Elderly woman**

Individual attending the delivery					
Doctor		ANM/LHV		Elderly woman	
No of EMW	%	No of EMW	%	No of EMW	%
76	17.0	91	20.3	281	62.7
<b>Total No of EMW - 448</b>					

Table 2.3.7 b provides information on assistance during delivery by doctors, health professionals (ANM or LHV) & elderly women. It is seen that maximum percentage of women (62.7%) are assisted by the elderly women while 20.3% receive assistance from ANM or LHV and only 17.0% avail assistance from the doctors.

### 2.3.8 Child Care

The healthy survival of the newborn baby is dependent on the health status of the mother and the feeding & weaning practices among infants which have always been an area of special interest where child rearing practices are concerned.

**Table – 2.3.8a: Initiation of breastfeeding**

Initiation of breast feeding	No of EMW	Percentage
1st day	37	8.3
2nd day	276	61.6
3rd day	63	14.1
No response	72	16.1
<b>Total</b>	<b>448</b>	<b>100</b>

Table 2.3.8a presents the details of the initiation of breast feeding after childbirth. It is interesting to note that maximum percentage of women (61.6%) initiate breast feeding on the second day while 14.1% of the women initiate breast feeding on the third day and 8.3% on the first day. Thus the practice of discarding colostrums is reflected in this tribe.



**Table – 2.3.8b: Duration of breast feeding & introduction of supplementary food**

Duration	Duration of breast feeding		Breast feeding along with supplementary food	
	No of EMW	Percentage	No of EMW	Percentage
6 month	4	0.9	209	46.7
1 year	102	22.8	156	34.8
2 year	88	48.2	-	-
3+ year	38	19.6	-	-
No response	-	8.5	83	18.5
<b>Total</b>	<b>448</b>	<b>100</b>	<b>448</b>	<b>100</b>

Table 2.3.8b highlights the duration of breast feeding and the introduction of supplementary food. It is observed that maximum percentage of women (48.2%) breast feed their

babies for a period of two year while 22.8% women breast feed their babies for one year and 19.6% women breast feed their babies for more than three years. Thus a prolonged duration of breast feeding is practiced among the Bhuyan women.

The introduction of supplementary food in right amount and frequency is important for appropriate infant and child feeding practices. It is noticed that normally the Bhuyan women introduce supplementary food at the age of six months (46.7%) whereas 34.8% women start giving supplementary food at the age of one year.

**Table – 2.3.8c: Immunization status of the children**

No of Ever Married Women (EMW)												
	At least one		BCG		DPT		Polio		Vit - A		Measles	
	No	%	No	%	No	%	No	%	No	%	No	%
Yes	209	46.7	218	48.7	218	48.7	196	43.8	172	38.4	172	38.4
NO	239	53.3	230	51.3	230	51.3	252	56.2	276	61.6	276	61.6
Total	448	100	448	100	448	100	448	100	448	100	448	100

Table 2.3.8 c reveals the coverage of various vaccines (BCG, DPT, Polio, Vit-A & Measles) among the children. It is noticed that 46.7% mothers immunized their children with at-least one vaccine while 53.3% mothers do not immunize their children. The table also shows that maximum percentage of mothers avail the BCG (48.7%) and DPT (48.7%) vaccine while 43.8% mothers give their children the Polio vaccine and the Vit-A and Measles is received by considerably less percentage of children.

### 2.3.9 Family Planning

The use of family planning methods is of vital importance to control the fertility of the population. Of all the methods, the permanent method or the sterilization method (Vasectomy/Tubectomy) is found to be a highly accepted method.

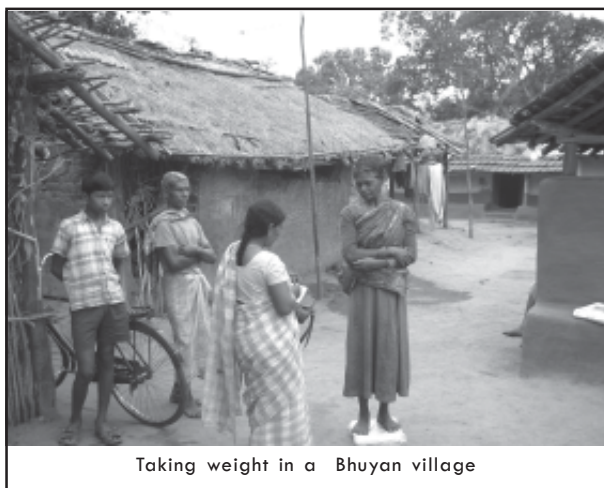
**Table – 2.3.9: Family welfare data  
(Permanent method)**

Method	Adopted		Not adopted	
	Number	Percentage	Number	Percentage
Sterilization	169	37.7	279	62.3

Table 2.3.9 highlights that only 37.7% of the Bhuyans accept the permanent method (Vasectomy/Tubectomy) of fertility regulation while 62.3% do not adopt any permanent method of fertility regulation.

### 2.4 NUTRITIONAL ANALYSIS

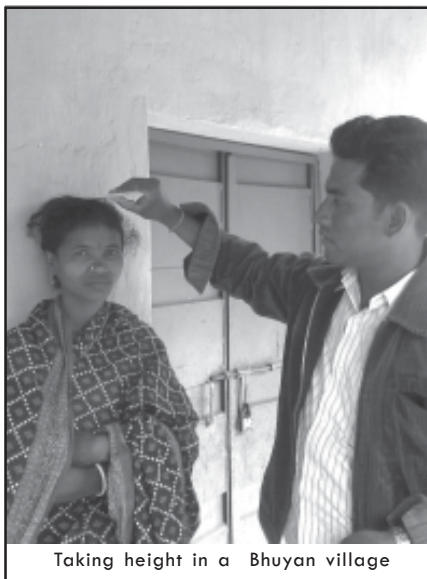
The nutritional status of the tribe can be evaluated using internationally accepted BMI guidelines. BMI is generally considered as a good indicator of not only the nutritional status but also the socio-economic status of the population.



**Table - 2.4.1: Nutritional status**

Parameter	Male (n – 303)	Female (n -324)
	Mean	Mean
Height (in cm)	159.5	154.02
Weight (in kg)	46.5	40.2
BMI (in kg/m <sup>2</sup> )	18.2	17.0

Table 2.4.1 shows the mean height, weight and computed BMI. The mean height of the Bhuyan male is found to be 155.5 cm and that of the female are 154.02 cm while the mean weight of the male are 46.5 kg and that of the female are 40.2 kg. Thus the mean BMI of male is calculated as 18.2 kg/m<sup>2</sup> and that of the female is 17.0 kg/m<sup>2</sup>. This shows that the BMI



of the male is slightly high than that of the female. Thus it is observed that the BMI of the males is slightly below the range of normal (18.5-24.9) while the females are underweight.

# 3

## THE JUANG

### 3.1 THE TRIBE

Juangs are a tribe found only in Odisha State. The community can broadly be divided into four sections, namely the Hill Juang and Plain Juang. The Hill Juang are confined to the hill ranges of Keonjhar and Pallahara, whereas the Plain Juang are distributed among the plains of Dhenkanal and Keonjhar Districts. The Hill Juang are still in a primitive stage, subsisting mainly on shifting cultivation, whereas the Juang of the plains have taken to settled agriculture.

They have their own language known as Juang. Nowadays they can speak Oriya.

#### 3.1.1 *Physical Feature*

Ethnically the Juang are considered a branch of the Munda group. They are medium in stature (Male - 161 cm. and Female -154cm) with long heads and high cheek bones. The

complexion of their skin varies from brown to dark brown. Scanty hair distributed on face and body. Hair form is wavy. Mongolian eye fold is slightly marked among the higher age groups.



### **3.1.2 Population and Distribution**

According to the 2011 Census the Juang population was 47,095 in Orissa. In 1991 their population was 41,339. Thus the growth rate of the Juang during the decade 2001-2011 was 13.92 per cent. The sex ratio as per 2011 Census was 1039 females per 1000 males.

The Juang claim the Juang Pirh of Keonjhar District as their homeland. Those who live in these area are known as Thaniya (original settlers), while those who have migrated to the plains of Keonjhar and Dhenkanal Districts are called Bhagudia (those who have fled away). There is a popular myth about their origin. The Juang believe that they are the first human beings to be born on earth. Their ancestors were born from Rusi couple (a saint and his partner) who were living in Rusi Tangar, a hillock near Gonasika in Keonjhar District.

### 3.1.3 Village

The Juang live in homogeneous villages located at the foothills or in the valleys surrounded by forest. Some settlements are situated in the plains. The villagers present a scene of scattered houses. An unique feature of the Juang settlement pattern is their frequent change of village site. Each village has a number of village sites and the villagers live in one



Enthusiastic Juang women and children near village dermitory

site for a number of years after which they move to another site. Many reasons are attributed to the change of village site, the main reasons being the shortage of taila land (land under shifting cultivation) around the village, the spr



daughters have a separate room for them. Cowsheds are built close to the huts. The walls of the houses are made of wooden pillars plastered with mud and cowdung. Thatching is generally done with grass. The room has no ventilation except one small entrance. A verandah in front of the room provides sitting accommodation.

The household appliances of the Juang consist of a few earthenware or ground containers, earthenware cooking pots, some baskets, one or two headrests, a few



Juang women and children

date-palm mats, aluminum or brass plates and arrows. For a Juang a hoe is more important than a plough because it is easier to use in the hills. Digging sticks and axes are used in shifting cultivation and therefore these are of great importance.

### **3.1.5 Food and Dress**

The Juang diet is never standardized nor systematic. During the agricultural season they eat food grains while during the off-season they satisfy their hunger with leaves, fruits, tubers, etc. Rice is the favorite food of the Juang. But since paddy cannot be cultivated in their taila and wetland is in short supply they produce other crops as a substitute. The Juang are extremely addicted

to liquor and drink different varieties such as mahuli, rice-beer, toddy and liquor made from maize and other cereals.

The dress of the Juang is nothing unusual. The men wear a dhoti, the women a sari. School-going children wear shirts and pants while other children use napkins. The women adorn their body with varieties of ornaments such as bangles, nose rings, earrings, toe rings, anklets,



armlets made of brass or alloy and multi-coloured bead necklaces of different designs. Women like to have tattoos on their foreheads and arms. This is considered necessary to enhance their beauty. The Juang bathe and clean their teeth regularly. Clothes are also washed daily. But women do not take a bath daily due to shortage of saris. They take little care of their hair. On market day or during any socioreligious function they comb their hair by applying kusum oil.

### **3.1.6 Religion & Festivals**

The Juang believe that their life is controlled and guided by various deities and defined spirits who live around them in the hills, forests and rivers. But at the top are Dharam Deota (the Sun God) and Basumata (Mother

Earth) who are the creators and preservers of Juang society. The next most important deity is Gramsiri or the village deity, which is represented by a pointed stone installed in front of dormitory house. She protects the villagers from all sorts of calamities and is therefore worshipped on almost all occasions.

The Juang observe various rituals throughout the year to propitiate their deities and ancestors. Their important festivals include Puspunei, Amba-Nua, Tirtia, Asadi, Pirh-Puja, Dhan-Nua, etc. On the occasion of Amba-Nua and Dhan-Nua the Juang clean their houses, throw away their old earthenware cooking pots and use new ones. They prepare a special type of food and offer it to the ancestors with mahuli liquor. The Juang observe Pus Punei with much pomp and ceremony, this being the beginning of the agricultural cycle. On the full moon day



of Pausa (December-January) the Nagam kills a pig and sprinkles blood over the grains collected from each household, these being kept in the mandaghar for seed purposes. Amba-Nua is associated with offerings of mango blossoms to the village deities and ancestral spirits. The village youth worship their deities called Bhima or

Kanchery near the dormitory on this occasion. There are some traces of borrowing from the Hindu pantheon and religious ceremonies. Hindu deities like Siva, Parbati and Jagannath are worshipped, and Hindu festivals such as Ratha Jatra, Raja Sankranty, Ganesh Puja and Laxmi Puja have been included in their annual festive cycle.

Dancing and music are an integral part of Juang social and religious festivals. Dances are also performed when the boys of one village go to visit another village on dancing expeditions. The boys and girls of one village belong to one kutum clan and cannot dance together. Therefore, occasionally they visit bandhu villages where changu dances are held. The dance continues for two, three or more days and nights without a break. While dancing the boys sing songs accompanied by musical instruments called changus and the girls dance to its tunes. The Juang are fond of singing. Their songs are also sweet and melodious. They have several folk songs, legends and folk tales, which depict their origin, cultural values, day-to-day activities, love and sorrows.

### **3.1.7 Economic Pursuit**

The routine work of the Juang centres around their economic activities. Work starts before sunrise and continues till late in the evening, when they go to the bed. There is a division of labour based on age and sex. The women do domestic work and also help their husbands in economic pursuits. Ploughing, sowing, broadcasting, thatching and tree felling are exclusively the work of men. The Juang pursue cultivation on four types of land: (1) taila (land under shifting cultivation), (2) guda (upland), (3) badi (kitchen garden), and (4) bila (wetland). Bila is owned by individual families whereas taila is the communal property of the village. Generally the hill slopes are cultivated for three to four years after which they are left fallow to recuperate. Then another hill-slope is selected for cultivation. After the patch is selected it is distributed among the households. The main crops, which

are grown in the taila, are mandia, gangei, kangu, jail, dhan, biri, tila and vegetables. Maize and tobacco are raised on the upland. In bila only paddy is grown.

The forests in Keonjhar are still rich with wild game and the Juang pursue hunting occasionally when they get time. They also collect fruits, roots and tubers from the forests. Fishing is a pastime rather than an economic pursuit for the Juang. The Juang of Pallahara make various types of baskets from bamboo, a skill they have picked up from



the local Scheduled Castes. Livestock rearing has not been taken up as an independent means of earning livelihood. The Juang raise cows, goats, fowls and pigs in small numbers either for agricultural or for religious purposes. The Hill Juang of Keonjhar do not like to work as labourers. In Dhenkanal most Juang are agricultural labourers or sharecroppers.

### **3.1.8 Political Organization**

In every Juang village there is a village council consisting of some office-holders and the village elders. It is responsible for the maintenance of peace and traditional norms in the village. The pradhan is the formal

headman of the council. All significant matters are brought to his notice. He decides cases like quarrels among the villagers, breaches of minor taboos, divorce cases and the separation of property with the help of village elders. The Nagam or Dehuri, the sacerdotal chief of the village, takes an active part in some important decisions regarding the distribution of taila land to the villagers and fixing the date for observing



A Juang family at Bansapal

different rituals. The Dangua acts as the messenger of the Nagam and the Pradhan.

The Juang Pirh in Keonjhar District is divided in to six sub-pirhs, which are the maximal traditional units for judiciary functions. Each sub-pirh has a sardar as its headman with a number of Pradhans under him. The duties of the Sardar in the past were to maintain law and order in his area and to collect land revenue from the raiyats on behalf of the chief of the feudatory State. At present he only exercises his judicial power in deciding cases such as incest, pre-marital pregnancy and other matters that cannot be settled at village level.

### **3.1.9 Bio-Social Tradition**

#### *a) Marriage*

Marriage is the most important event in the life of an individual. It not only satisfies their biological urge but also gives them a status in society. There are several methods of acquiring mates in the Juang society. These are (1) marriage by negotiation, (2)

marriage by capture, (3) love marriage, and (4) widow marriage.

In negotiation marriage the parents of the boy select the girl for marriage. The parents perform rice divination on an auspicious day before starting negotiations for marriage. If the divination indicates a good sign, the boy's party does not raise any objection to the marriage. The marriage is settled when both parties agree. The villagers fix an auspicious day for the marriage. On the fixed day the villagers of the boy pay a bride price and bring the bride. The bride's party consisting of her kith and kin comes to the bridegroom's village. A changu competition is held between the two parties. The marriage takes place at an altar constructed in the front of the groom's house. Marriage by capture is most common among the Juang. The bride is captured by the bridegroom's representatives from the dancing ground, bathing ghats or market. In this case the prior permission of the groom's parents is required, although the prior consent of the bride's father is not necessary. After marriage the bridegroom's party visits the bride's village and pays the bride price consisting of some money, paddy and cloths. Love marriages sometimes take place which is regularized afterwards. Divorce is socially permitted in the Juang society. Divorcees and widowers can remarry if they like. A widow is expected to marry her late husband's younger brother.

#### *b) Family*

Ordinarily the Juang have nuclear families consisting of a husband, wife and unmarried children. Grown-up sons after marriage remain separate. Extended families consisting of a married couple and elderly parents are also not uncommon. After her marriage a girl ceases to be a member of her parental family and goes to stay with her husband. The family in the Juang society is patrilineal, patrilocal and patripotestal. The father is the head of the family

under whose guidance the family functions as social and economic unit.

c) *Birth*

Some kind of ritual is associated with each stage of their life cycle. A woman in Juang society is expected to become a mother after marriage. If a couple remains childless over a long period of years, they try to overcome the trouble by divination. When a woman becomes pregnant she has to observe various taboos. At the time of delivery a midwife or elderly woman from the village is called to assist the expectant woman for easy delivery. She cuts the umbilical cord with a bamboo knife, anoints with turmeric paste and bathes the child in warm water. The mother remains secluded and is not allowed to do any household work during the period of birth pollution, which continues for up to seven days in Dhenkanal and one day in Keonjhar. On the fifth or sixth day after delivery the name-giving ceremony of the child is held. The child generally takes the name of one of its deceased ancestors. On that day the child's father sacrifices chicken and offers the meat to the ancestors and other deities. The mother cooks rice and chicken which she distributes to the lineage members.

d) *Death*

Like many other tribals the Juang believe that death occurs due to acts of supernatural powers. In order to satisfy the soul of the dead and give it rest in the other world, the Juang observe a death ceremony in different phases. The customary law of disposing of the dead is the cremation of the corpse. The nearest relative takes the corpse to the cremation ground on a bier, where it is placed on the pyre with its head pointing towards the east. One of the nearest relatives lights the pyre after certain rituals are held there. Then the mourners return home and take a purificatory bath. Death pollution is observed for two days in Keonjhar and ten days in



Dhenkanal. The deceased's close relatives are the mourners who observe various restrictions in respect of food and work. On the day of purification everyone takes a bath. Food is offered to the departed soul and a feast is given to the villagers.

**Table 3.1: Total household coverage of the Juang**

<b>Blocks covered</b>	<b>Gram Panchayats covered</b>	<b>Villages covered</b>	<b>Households covered</b>
2	6	15	515

### **3.2 SOCIO-ECONOMIC CHARACTERISTICS**

The important characteristic features of this tribe which distinguish them from the general population are discussed in this section.

#### **3.2.1 Age Group**

The demographic and health seeking behavior is more or less associated with several characteristics such as age, marital status, etc. The following table shows the age-sex distribution of the respondents.

**Table - 3.2: Distribution of the population under study by age group**

<b>Age Group in years</b>	<b>Male</b>		<b>Female</b>	
	<b>No</b>	<b>%</b>	<b>No</b>	<b>%</b>
15-19	-	-	10	1.9
20-24	25	5.7	105	20.4
25-29	80	18.4	95	18.4
30-34	85	19.5	130	25.2
35-39	70	16.1	90	17.5
40-44	75	17.2	45	8.7
45-49	45	10.3	40	7.8
49+	55	12.6	-	-
<b>Total</b>	<b>435</b>	<b>100</b>	<b>515</b>	<b>100</b>

Table 3.2. highlights the age-sex composition of this tribe from the age-group 15 to 49 years. The table shows that maximum percentage of both the male and female respondents are in the age-group 30-34 years. Interestingly the distribution of female respondents in the age group of 15-19 years is very low, nearly 2 percent.

### 3.2.2 Marital Status

The marital status provides the vital information regarding the fertility of the population. The data in table 3.2.2 states the marital status of female the respondents. It is observed that about 85 percent of respondents are currently married.

**Table - 3.2.2: Distribution of women by marital status  
Female (EMW)**

Status	Married	Widowed	D/S	Total
Number	435	80	-	515
Percent	84.5	15.5	-	100%

### 3.2.3 Housing Pattern

The villages present a scene of scattered houses. Majority of the houses of the study area are constructed with mud wall (100%) and floor (98.1%) while the roof is made of tiles (40.8%). Some small straw thatched huts (34.9%) are also seen.

**Table – 3.2.3: Housing pattern of the population**

Roof material			Wall			Floor		
Category	No	%	Category	No	%	Category	No	%
Thatched	180	34.9	Mud	515	100	Mud	505	98.1
Thatched with mud roof	125	24.3	Brick + mud	-	-	Cement	10	1.9
Tile	210	40.8	Brick + cement	-	-	-	-	-
Total	515	100	Total	515	100	Total	515	100

### 3.2.4 Lifestyle Indicators

The life style indicators reflect the socio-economic status of this tribe. The socio-economic status directly or indirectly influences the reproductive health of the women as also the nutritional status of the tribe.

Juang huts are small in size and are used for multifarious purposes such as bedroom, kitchen, store etc. The majority of the houses have all purpose single room (87.4%). Some well to do families (1.0%) have multi-roomed houses.

**Table – 3.2.4a: No of living rooms**

No of living rooms	Number	Percentage
1	450	87.4
2	45	8.7
3	15	2.9
>3	5	1.0
Total	515	100

**Table – 3.2.4b: Kitchen garden/Kitchen room/Fuel used**

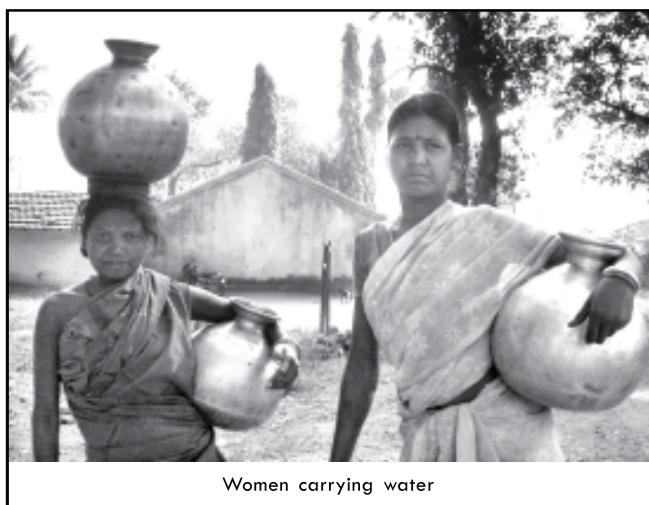
Kitchen garden				Kitchen room				Fuel used					
Yes		NO		Yes		NO		Dry stick		Wood		Dry leaves	
No	%	No	%	No	%	No	%	No	%	No	%	No	%
-	-	515	100	20	3.9	495	96.1	120	23.3	380	73.8	15	2.9

All the houses of the Juangs do not have kitchen garden (100%) and majority of the houses do not have separate kitchen rooms (96.1%). Only few houses (3.9%) have separate kitchen rooms. Table 2.4b also reveals the fuel used for cooking by the Juangs. The Juangs utilize the Jungle for collecting dry stick, wood and dry leaves and used them as fuel. 73.8 % of this tribe depends on wood for fuel.

**Table – 3.2.4c: Source of drinking water**

Tube Well		Well		Stream		Total	
No	%	No	%	No	(%)	No	(%)
188	36.50	238	46.21	89	(17.3)	515	(100)

The table 2.4 c shows that nearly 46.2% Juang families use dug well water, 36.5% use water from tube well and still 17.3% Juang families depend on stream. The families use stream water are living mostly in highland forest areas. These areas are not accessible by good roads.



**Table -3.2.4: Transport/Electronic item**

Transport			Electronic item		
Item	No	%	Item	No	%
Cycle	105	20.4	Radio	55	10.7
Bike	35	6.8	Television	-	-
Nil	375	72.8	Nil	460	89.3
<b>Total</b>	<b>515</b>	<b>100</b>	<b>Total</b>	<b>515</b>	<b>100</b>

Majority of the Juangs (72.8%) do not possess any transport while 20.4% have a cycle and only 6.8% possess a bike. The households who do not have any transport either do not feel the need of any transport or cannot afford for the same. The possession of electronic items reflects the poor economic status of the tribe. The table shows that majority of the households do not have any electronic item (89.3%).

### 3. 2.5 Economy

The occupation or main earning source and the monthly family income reflects the economic status of this tribe. The following table reflects the occupation of respondents.

**Table - 3.2.5: Main earning source**

Male			Female		
Occupation	No	%	Occupation	No	%
Unemployed	11	2.3	Unemployed	390	75.7
Cultivator	214	49.3	Cultivator	40	7.8
Daily Labour	203	46.6	Daily Labour	85	16.5
Private Job	7	1.7	-	-	-
<b>Total</b>	<b>435</b>	<b>100</b>	<b>Total</b>	<b>515</b>	<b>100</b>

Table 3.2.5 reflects the main earning source of the males and the female respondents. Most of the males are engaged as cultivator (49.3%) and daily labour (46.6%) while most of the females are unemployed (75.7%). Apart from this 16.5% females also work as daily labour. It is needness to say that most of the eligible female go to forest for wood collection.

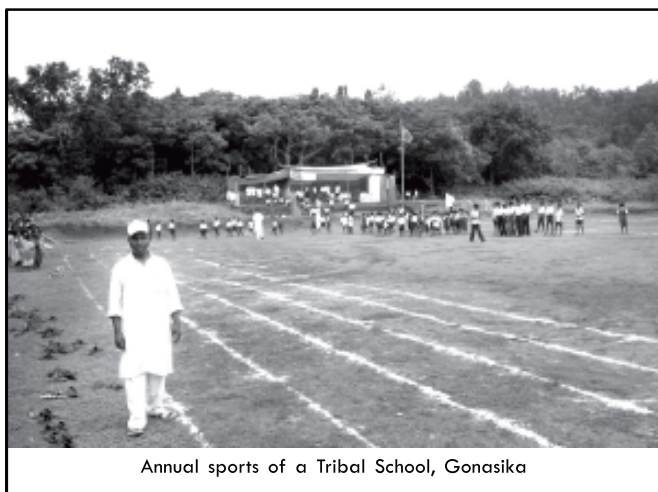
**Table – 3.2.5: Monthly family income**

Family income (in Rupees)	Number	Percentage
< 1000	460	89.3
1001-2000	55	10.7
2001-3000	-	-
>3000	-	-
Total	515	100
Average family income – Rs 1054.40/-		

The Juangs family income is reasonably low as evident from the table 2.5. Majority of the households (89.3%) have family income less than Rs 1000/-. Thus the average family income as calculated is Rs 1055/-.

### 3.2.6 Educational Status

Educations in tribal areas is very low compared to the plain dwellers. The following table shows the literary standard of the Juang respondents.



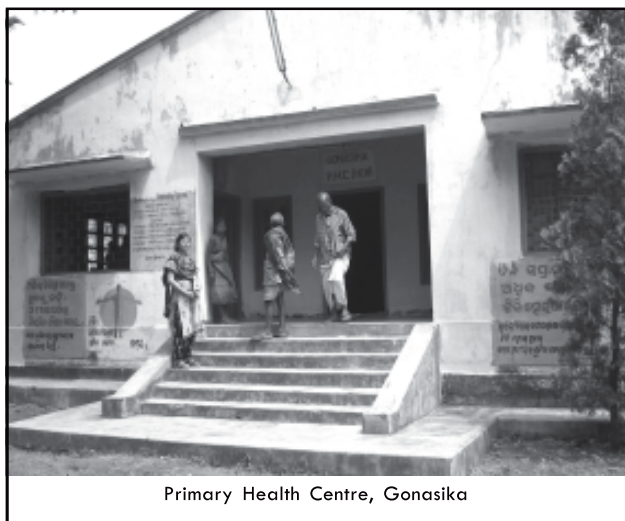
**Table - 3.2.6: Educational status**

Male			Female		
Educational status	No	%	Educational status	No	%
Illiterate	353	68.5	Illiterate	445	86.4
Lower Primary	61	11.8	Lower Primary	70	13.6
Upper Primary	37	7.2	Upper Primary	-	-
Middle Exam	28	5.4	Middle Exam	-	-
High School	19	3.7	High School	-	-
+2	9	1.7	+2	-	-
Dip	8	1.6	Dip	-	-
Total	515	100	Total	515	100

Table 3.2.6 reflects the educational status of both the male and female respondents of this tribe. It is found that majority of the males (68.5%) and females (86.4%) are illiterate. Thus the adult literacy rate of the Juang tribe is found to be very low, particularly of the female.

### 3.3 REPRODUCTIVE HEALTH

Reproductive health behavior includes behavior related to marriage, maternal & child healthcare, family planning practices, nutritional status of the women etc.



#### 3.3.1 Age at Menarche

Menarche is an important event in the life of a Juang women. It is welcomed by the members of family

Further, the age at menarche is the biological determinant of fertility. The mean age at menarche of the Juang women is found to be 12.7 years. Table 3.1 reveals that maximum percentage of the women (34.0%) attains menarche at the age of 13 years. It is interesting to note that the menarcheal age of 1.0% women is 17 years which is noticeably late.

**Table - 3.3.1: Age at menarche of the Ever Married Women (EMW)**

<b>Age at menarche in years</b>	<b>Number of EMW</b>	<b>Percentage</b>
10	30	5.8
11	45	8.7
12	140	27.2
13	175	34.0
14	80	15.5
15	35	6.8
16	5	1.0
17	5	1.0
Total	515	100
<b>Mean age at menarche – 12.7 years</b>		

### **3.3.2 Age at Marriage**

Age at first marriage of the Juang female respondents is given below

**Table – 3.3.2: Age at marriage of the Ever Married Women (EMW)**

<b>Age group in years</b>	<b>Number of EMW</b>	<b>Percentage</b>
< 13	30	5.8
13-15	245	47.6
16-18	195	37.9
19-21	35	6.8
>21	10	1.9
Total	515	100
<b>Mean age at marriage – 15.6 years</b>		

The mean age at marriage of the Juang women is found to be 15.6 years. Table 3.2 shows that maximum percentage of women (47.6%) get married between 13 to 15 years and 37.9% of the women get married between



16 to 18 years. It is also observed that 5.8% women get married below 13 years of age which is little early.

### 3.3.3 Age at 1st Conception

Age at first conception of the respondents is presented below.

**Table – 3.3.3: Age at 1st conception of the Ever Married Women (EMW)**

Age group in years	Number of EMW	Percentage
< 13	14	2.7
13-15	98	19.0
16-18	291	56.5
19-21	84	16.3
> 21	28	5.4
Total	515	100
<b>Mean age at 1st conception – 17.02 years</b>		

The mean age at first conception is found to be 17.02 years. This shows that the gap between age at marriage and age at first conception is nearly one year and six months. Thus as observed from the table also maximum percentages of women (56.5%) conceive between 16 to 18 years.

### 3.3.4 Age at 1st Child Birth

Age at first child birth of the Juang women is presented below.

**Table – 3.3.4: Age at 1st child birth of the Ever Married Women (EMW)**

Age group in years	Number of EMW	Percentage
<13	2	0.4
13-15	73	14.2
16-18	213	41.4
19-21	161	31.3
> 21	66	12.8
Total	515	100
<b>Mean age at 1st child birth – 18.01 years</b>		

Table 3.3.4 reveals the mean age at first child birth of the Juang women which is 18.01 years. The gap between the mean age at first marriage & the mean age at first childbirth is 2.5 years which further confirms the fact that average women conceive after one year and six months of marriage.

### 3.3.5 Fertility Performance

Human fertility is responsible for the biological replacement and maintenance of the human species. Table 3.3.5 presents the fertility performance of the ever married women. The total number of conceptions, uterine wastage (abortion and stillbirth) and live-births are some of the major findings of the study.

**Table – 3.3.5: Fertility Performance of the Ever Married Women (EMW)**

Number	Conception		Abortion		Stillbirth		Live-birth	
	No of	%	No of	%	No of	%	No of	%
	EMW		EMW		EMW		EMW	
0	-	-	387	75.0	412	80.0	43	8.3
1	85	16.5	92	17.9	87	16.9	95	18.4
2	105	20.4	35	6.8	14	2.7	114	22.1
3	120	23.3	1	0.2	2	0.4	97	18.8
4	80	15.5	-	-	-	-	89	17.3
5	65	12.6	-	-	-	-	56	10.9
6+	60	11.7	-	-	-	-	21	4.1
Total	515	100	515	100	515	100	515	100
Total no of	Conception-1660		Abortion-165		Stillbirth-121		Livebirth-1376	
Mean (per woman)	3.22		0.32		0.23		2.67	

The total number of conception of the 515 Juang women is found to be 1660 and thus the mean conception per women is 3.22. The conceptions terminating before birth are taken as uterine wastage (Abortion + Stillbirth). In this population the uterine wastage is found to be 0.55

which is a little high. It is further noticed that the total number of live-births of the women is 1376 and thus the mean live-births per woman is 2.67.

### 3.3.6 Antenatal Care

Antenatal care refers to pregnancy related health care provided by a doctor or health worker in a medical facility or at home.

**Table - 3.3.6.a: Antenatal checkup received**

Antenatal checkup received				Antenatal checkup not received	
Number		Percentage		Number	Percentage
164		31.8		351	68.2
Iron Folic Acid (IFA)		Tetanus Toxoid (TT)		-	-
No of EMW	%	No of EMW	%	-	-
154	29.9	119	23.1	-	-

Table 3.3.6.a highlights the acceptance of the maternal care services provided by the Government. Only 31.8% women received antenatal checkup where as 68.2% did not receive any antenatal checkup. It is also observed that 29.9% of the women have taken IFA tablets and 23.1% have taken at-least one TT vaccine.

**Table – 3.3.6b: Reasons for not availing antenatal checkup**

Reasons for not availing antenatal checkup	Number of EMW	Percentage
Not required	248	48.2
Elders did not allow	143	27.8
Non availability of staff	-	-
Timing of PHC not suitable	-	-
Distance of PHC	95	18.4
No supply of medicine	-	-
Any other reason	29	5.6
No response	-	-
<b>Total</b>	<b>515</b>	<b>100</b>

There are several reasons reported by the women for not availing any antenatal checkup. Maximum percentage of women (48.2%) reported that it is not required and pregnancy is a normal phenomenon while 27.8% women also reported that elders did not allow and 18.4% women complained that the distance of PHC is a major issue.

### 3.3.7 *Natal Care*

One of the important major thrust areas of the RCH programme in India is to encourage and promote deliveries under proper hygienic conditions and under the supervision of trained health professionals.



**Table – 3.3.7a: Place of delivery**

Place of delivery	No of EMW	Percentage
Home	460	89.3
Hospital	55	10.7
<b>Total</b>	<b>515</b>	<b>100</b>

Table 3.3.7a shows that in spite of the various schemes of Government for promoting institutional delivery, 89.3% women have home deliveries and only 10.7% go for institutional delivery.

**Table – 3.3.7b: Birth assisted by Doctor/ANM/Elderly woman**

Personnal attending the delivery					
Doctor		ANM/LHV		Elderly woman	
No of EMW	%	No of EMW	%	No of EMW	%
26	5.0	98	19.0	391	75.9
Total No of EMW - 515					

Table 3.3.7b provides information on assistance during delivery by doctors, health professionals (ANM or LHV) & elderly women. It is seen that maximum percentage of women (75.9%) are assisted by the elderly women while 19.0% receive assistance from ANM/LHV and only 5.0% avail assistance from the doctors.

### **3.3.8 Child Care**

The healthy survival of the newborn baby is dependent on the health status of the mother and the feeding & weaning practices among infants which have always been an area of special interest where child rearing practices are concerned.



Juang women with their breastfed children

**Table – 3.3.8a: Initiation of breastfeeding**

<b>Initiation of breast feeding</b>	<b>No of EMW</b>	<b>Percentage</b>
1st day	96	18.6
2nd day	74	14.4
3rd day	312	60.6
No response	33	6.4
<b>Total</b>	<b>515</b>	<b>100</b>

Table 3.3.8a presents the details of the initiation of breast feeding after childbirth. It is interesting to note that maximum percentage of women (60.6%) initiate breast feeding on the third day while 14.4% initiate breast feeding on the second day and 18.6% initiate breast feeding on the first day. Thus the practice of discarding colostrums is widely prevailing in this tribe.

**Table – 3.3.8b: Duration of breast feeding & introduction of supplementary food**

<b>Duration</b>	<b>Duration of breast feeding</b>		<b>Breast feeding along with supplementary food</b>	
	<b>No of EMW</b>	<b>Percentage</b>	<b>No of EMW</b>	<b>Percentage</b>
6 month	98	19.0	323	62.7
1 year	129	25.0	164	31.8
2 year	288	55.9	28	5.4
<b>Total</b>	<b>515</b>	<b>100</b>	<b>515</b>	<b>100</b>

Table 3.3.8b highlights the duration of breast feeding and the introduction of supplementary food. It is observed that maximum percentage of women (55.9%) breast feed their babies for a period of two year while 25.0% women breast feed their babies for a period of one year and 19.0% women breast feed their babies for only six months. Thus a prolonged duration of breast feeding is practiced among the Juang women.

The introduction of supplementary food in right amount and frequency is important for appropriate infant and child feeding practices. It is noticed that normally the Juang women introduce supplementary food at the age of six months (62.7%) whereas 31.8% women start giving supplementary food at the age of one year.

**Table – 3.3.8c: Immunization status of the children  
No of Ever Married Women (EMW)**

	At least one		BCG		DPT		Polio		Vit - A		Measles	
	No	%	No	%	No	%	No	%	No	%	No	%
Yes	341	66.2	276	53.6	274	53.2	261	50.9	197	38.3	148	28.7
NO	174	33.8	239	46.4	241	46.8	254	49.3	318	61.7	367	71.3
Total	515	100	515	100	515	100	515	100	515	100	515	100

Table 3.3.8c reveals the coverage of various vaccines (BCG, DPT, Polio, Vit-A & Measles) among the children. It is noticed that 66.2% mothers immunized their children with at-least one vaccine while 33.8% mothers do not immunize their children. The table also shows that maximum percentage of mothers avail the BCG (53.6%) and DPT (53.2%) vaccine while 50.9% mothers give their children the Polio vaccine and the Vit-A and Measles is received by considerably less percentage of children.

### 3.3.9 Family Planning

The use of family planning methods is of vital importance to control the fertility of the population. Of all the methods, the permanent method or the sterilization method (Vasectomy/Tubectomy) is found to be a highly accepted method.

**Table – 3.3.9: Family welfare data (Permanent method)**

Method	Adopted		Not adopted	
	Number	Percentage	Number	Percentage
Sterilization	181	35.1	334	64.9

Table 3.3.9 highlights that 64.9% of the Juangs do not accept the permanent method (Vasectomy/Tubectomy) of fertility regulation while 35.1% adopt the permanent or sterilization method for fertility regulation.

### 3.4 NUTRITIONAL ANALYSIS

The nutritional status of the tribe can be evaluated using internationally accepted BMI guidelines. BMI is generally considered as a good indicator of not only the nutritional status but also the socio-economic status of the population.



**Table - 3.4: Nutritional status**

	Male (n – 414)	Female (n - 423)
Parameters	Mean	Mean
Height (in cm)	160.9	153.9
Weight (in kg)	50.2	43.4
BMI (in kg/m2)	19.4	18.3



Table 3.4 shows the mean height, weight and computed BMI. The mean height of the Juang male is found to be 160.9 cm and that of the female are 153.9 cm while the mean weight of the male are 50.2 kg and that of the female are 43.4 kg. Thus the mean BMI of male is calculated as 19.4 kg/m<sup>2</sup> and that of the female is 18.3 kg/m<sup>2</sup>. This shows that the BMI of the Juang male is more than that of the female. The BMI of males comes under the normal range (18.5-24.8) while the females are slightly underweight.

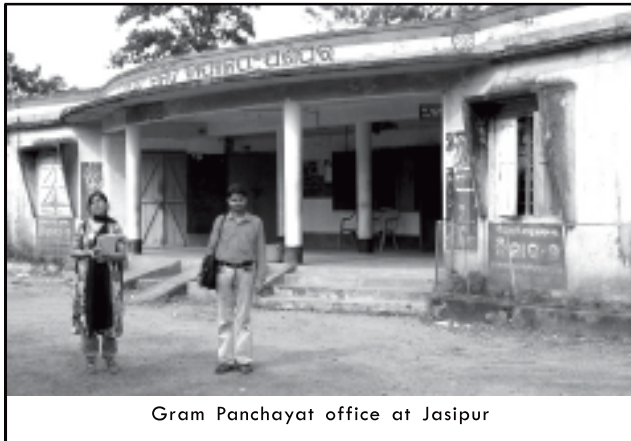
# KHARIA

## 4.1 THE TRIBE

As regards the name 'Kharia', Russell and Hiralal suggest that it is a jargon term derived from kharkharia, palanquin or litter. The original name Khar-Kharia has been contracted to Kharia who carry palanquin. The Kharia are thus named in accordance with the tradition that their first ancestors carried a banghy (carrying pole). The Kharia legend of origin resembles that of the Mundas, and tends to show that they are the elder branch of that tribe. The history of origin shows that their traditional occupation has been to till the soil and carry banghy. Dalton also records the following tradition of origin: "There is a tradition that the Kharia with another tribe called Purans were the aborigines of Mayurbhanj, one of the Katak Tributary Mahals. They aver that they and the family of the chief (Bhanj) were all produced from a peafowl's

egg, the Bhanj from the yoke, the Purans from the white and the Kharia from the shell.”

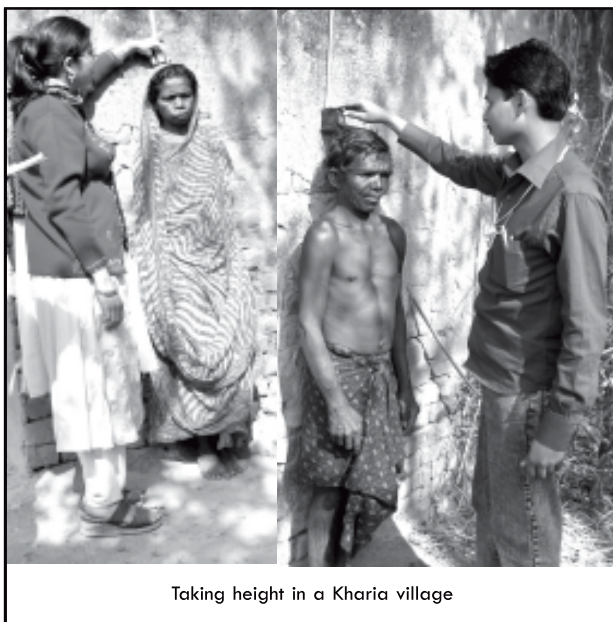
The Kharia tribe is split into three social groups, namely the Pahari Kharia (Hill Kharia), the Dhelki Kharia (early-comers), and the Dudh Kharia (pure Kharia). These three social groups are distinguished from each other and have relatively speaking, three grades of primitive culture. The Hill Kharia, the primitive and backward section of the tribe, represent the hunting and food



gathering stage of economic life along with the practice of rudimentary cultivation and primitive culture. The Dhelki section represents a more advanced culture with plough cultivation and food production. And the Dudh Kharia section represent the most advanced culture, bringing them into line with other Munda-speaking tribes in India.

#### **4.1.1 Physical Feature**

Kharias are low medium statured people. The average height of male is 159 cm and that of the female is 148 cm. Complexion varies from brown to dark brown . Body medium built. Less hair growth on face and body. Mongolian eye fold is not marked.



Taking height in a Kharia village

#### **4.1.2 Population and Distribution**

According to the 2001 Census the total Kharia population in Orissa was 1,88,331 males 93,467 and females 94,864. They have registered a growth of 11.83 percent during 1991-2001. The sex ratio in 2001 was 985 males per 100 females.

The Kharia are widely spread over Orissa, Bihar, West Bengal and Madhya Pradesh. The Hill Kharia claim to be the autochthons of the Mayurbhanj Hills. The Dhelki Kharia and the Dudh Kharia probably migrated from the Kaimur plateau and came down to live in the country of Chotanagpur and Birupargana in Ranchi District through the Kharia Ghat. The Dhelki Kharia moved up earlier and subsequently the Dudh Kharia followed their migration route. In time the Kharia moved over to Sundargarh, Sambalpur and Mayurbhanj in Orissa, Midnapur and Bankura in West Bengal and the tea gardens of Assam.

The Similipal hill ranges are the hearth and home of the Hill Kharia. They are also found in insignificant numbers in

Manbhum, Chotanagpur and Singhbhum in Bihar, Midinapur and Bankura in West Bengal, and Balasore, Mayurbhanj, Keonjhar, Sambalpur and Dhenkanal in Orissa.

#### **4.1.3 Village**

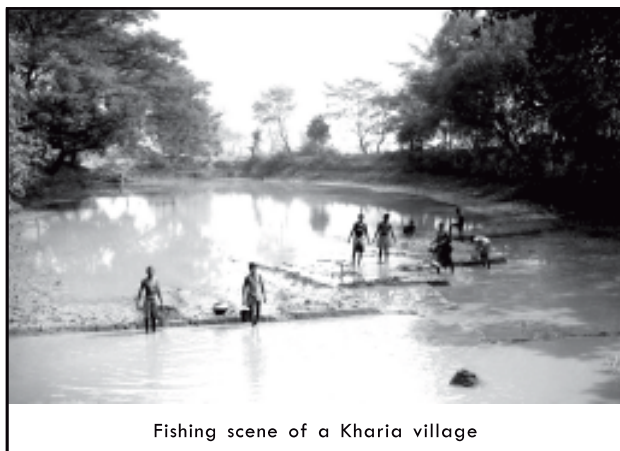
The Hill Kharia live in the hills and forests of Mayurbhanj. Their villages vary in size from ten to twenty families or even more. Most of the study villages are unitribe villages. In other hands, Kharias live in homogeneous units. However in some of the cases they do live adjacent to other primitive tribes such as Lodha and Mandirdia. Although they live very close to other tribal communities they maintain their village solidarity and community tradition. Majority villages do not have proper communication or sanitation facilities. Kharias depend on bicycle for their communication. Very few village do have functioning tubewells.

#### **4.1.4 House & Household Articles**

Kharia huts are located in a scattered manner on hill tops, slopes or even the foot hills. A typical Hill Kharia house is a small multipurpose rectangular hut with walls made of sal wood and plastered with mud. The roof of the hut is made out of double sloped wooden frame and thatched with grass or straw. Few Kharia houses have a separate space for kitchen. Most of them use wood for their cooking. Very few possess radio and recorder. However, quite a few have bicycles. Rice is the staple food of the Kharias. Millet and pulses of different kinds also consumed by them. Various fruits, roots and tubers are being collected and consumed. Non-vegetarian items are taken as per collected and consumed. Non-vegetarian items are taken as per availability. They normally eat twice daily. Kharias, like other tribes are hand pump water, country liquor and tobacco.

#### **4.1.5 Food and Dress**

Kharia children go naked up to six years. Children from 7 to 10 years wear the boroka (loin cloth) around their thighs and waists. Adult Kharia wear small dhotis and



Fishing scene of a Kharia village

women wear white cotton sarees, which fall down to the ankles. Now a days the Kharia, especially the more advanced sections of the tribe, wear modern dress. Kharia women adorn themselves with various types of ornaments, which include brass necklaces, armlets, earrings, finger rings and iron hair pins. Some young boys also wear bead necklaces. Women wear ribbons to decorate their hair.

#### **4.1.6 Religion and Festivals**

Thakurani or the Earth Goddess is the supreme deity of the Hill Kharia. They also worship Dharani Devata and a hero named Banda. They venerate their ploughs and axes on the day of dashara. They worship the Sun. Their religious beliefs and practices are based on the propitiation of various gods and spirits by observing different rites, ceremonies and sacrifices. They believe that the spirits who reside in the hills and forests control nature. The Kharia believe in black and white magic. However, currently their religious ideas, beliefs and rituals have traces of borrowing from the Hindu pantheon.

#### **4.1.7 Economic Pursuit**

The three sections of the tribe lie at three different stages of economic scale: the Hill Kharia subsist on food gathering and hunting. But now a day the Hill Kharia mostly depends on food gathering and hunting. Some of

them also practice rudimentary cultivation. Their major source of income is derived from the collection of forest products such as resin, wax, honey, tusser cocoon, gum, lac, etc., which they barter for paddy and other cereals.

#### **4.1.8 Political Organization**

The traditional political organization of the Kharia is constituted at two different levels, one at the village level and the other at the inter-village level, in order to keep solidarity and law and the order intact. Every Kharia village has a panchayat of its own headed by a Pradhan among the Hill Kharia. Cases of a breach of any taboo and disputes about partition, divorce, adultery and the like are decided in meetings of the village council, which also raises funds for public worship, religious feasts and sacrifice during epidemics. The members of the council are present at rites and ceremonies relating to birth, marriage and death. In cases of serious offences, the village council has the power to excommunicate a person from the society.

#### **4.1.9 Bio Social Tradition**

##### **a) Marriage**

Adult boys marry at an age of twenty and above, and girls marry at an age of fifteen to eighteen years. They practice monogamy and cross-cousin marriage. Marriage by arrangement and negotiation is the ideal pattern. The grooms's party pays a bride price, six pieces of cloth, one maund of paddy, two barrels of liquor, one goat and other such edibles required for the wedding feast. After marriage the couples live neolocally. The other prevailing forms of marriage are marriage by capture, elopement and service. Divorce is allowed and widows are permitted to remarry.

##### **b) Birth**

In the case of Hill Kharia, after delivery of a child a period of birth pollution is observed for nine days.

The mother and the new-born baby take a ceremonial bath on the ninth day. A few families observe a second purificatory ceremony on the 21st day after the birth.

**c) Family**

The family is mostly nuclear, consisting of parents and their unmarried children. The average size of the family is five to six members. The Kharia family is patrilinear and patriarchal.

**d) Death**

They bury the corpse and observe death pollution for ten days.

Like any tribes, the Kharia are very fond of dancing and music. Every occasion of feast and festivals is celebrated by dancing and music. Musical instruments such as the madal, changu, dholak, nagra and flute are used for dancing.

**Table 4.1: Total household coverage of the Kharias**

Blocks covered	Gram Panchayats covered	villages covered	Households covered
5	8	14	460

## **4.2 SOCIO-ECONOMIC CHARACTERISTICS**

The important characteristic features of this tribe which distinguish them from the general population are discussed in this section.

### **4.2 Age Group**

The demographic and health seeking behavior is more or less associated with several characteristics such as age, marital status, etc. Age and sex distribution of respondents are presented in the following table.



**Table - 4.2: Distribution of the population under study by age group**

Age Group in years	Male		Female	
	No	%	No	%
15-19	-	-	56	12.2
20-24	66	15.2	91	19.8
25-29	78	18.0	81	17.6
30-34	86	19.8	68	14.8
35-39	47	10.8	58	12.6
40-44	58	13.4	42	9.1
45-49	69	15.9	64	13.9
49+	30	6.9	-	-
<b>Total</b>	<b>434</b>	<b>100</b>	<b>460</b>	<b>100</b>

Table 4.2 highlights the age-sex composition of this tribe from the age-group 15 to 49 years. The table shows that maximum percentage of the male (19.8%) is in the age-group 30-34 years while that of the female (19.8%) are in the age-group 20-24 years. Nearly 12% female respondents are in the age group of 15-19 years.

#### **4.2.2 Marital Status**

The marital status provides the fundamental information of the population responsible for the fertility. The data in table 2.2 states the marital status of the ever married women.

**Table - 4.2.2: Distribution of women by marital status Female (EMW)**

Status	Married	Widowed	D/S	Total
Number	434	19	7	460
Percent	94.3	4.1	1.5	100%

### 4.2.3 Housing Pattern

The houses are located in a scattered manner and the settlement pattern is irregular. Majority of the houses of the study area are constructed with mud wall (80.9%) and floor (88.9%) while the roof is Thatched (59.8%). Some well-to-do houses with tiles or asbestos roof, brick and cement wall and cement floor are also seen.

**Table – 4.2.3: Housing pattern of the population**

Roof material			Wall			Floor		
Category	No	%	Category	No	%	Category	No	%
Thatched	275	59.8	Mud	372	80.9	Mud	409	88.9
Tiles	126	27.4	Brick + mud	30	6.5	Cement	51	11.1
Asbestos	59	12.8	Brick + cement	58	12.6	-	-	-
<b>Total</b>	<b>460</b>	<b>100</b>	<b>Total</b>	<b>460</b>	<b>100</b>	<b>Total</b>	<b>460</b>	<b>100</b>

### 4.2.4 Lifestyle Indicators

The life style indicators reflect the socio-economic status of this tribe. The socio-economic status directly or indirectly influences the reproductive health of the women as also the nutritional status of the tribe.

The majority of the houses have multipurpose rectangular single room (70.0%). Some families have two-three roomed houses and only one percent of the population have more than three rooms.

**Table – 4.2.4a: No of living rooms**

No of living rooms	Number	Percentage
1	322	70.0
2	109	23.7
3	21	5.2
> 3	5	1.1
Total	460	100

**Table – 4.2.4b: Kitchen garden/Kitchen room/Fuel used**

Kitchen garden		Kitchen room		Fuel used		
Yes	NO	Yes	NO	Dry stick	Wood	Dry leaves
No %	No %	No %	No %	No %	No %	No %
287 62.4	173 37.6	273 59.3	187 40.7	134 29.1	307 66.7	19 4.1

Majority of the houses of the Kharias have a kitchen garden (62.4%) and separate kitchen rooms (59.3%) while some houses do not have a kitchen garden (37.6%) and also a separate kitchen room (40.7%). Table 4.2.4b also reveals the fuel used for cooking by the Kharias. The Kharias utilize the Jungle for collecting dry stick and wood. 66.7 % of this tribe depends on wood for fuel while 29.1% depends on dry stick for fuel.

**Table – 4.2.4c: Source of drinking water**

Well		Tube-well		Municipality tap	
No	%	No	%	No	%
337	73.3	77	16.7	46	10.0

Majority of the villages have well and tube-well which shows that ground water level is relatively high in this areas. 73.3% depend upon well for drinking water while only 16.7% depend upon tube-well. 10% of the households depend upon municipality water supply for drinking purpose.

**Table - 4.2.4d: Transport/Electronic item**

Transport			Electronic item		
Item	No	%	Item	No	%
Cycle	234	50.9	Radio	55	12.0
Bike	6	1.3	Tape	10	2.2
Nil	220	47.8	Nil	395	85.9
<b>Total</b>	<b>460</b>	<b>100</b>	<b>Total</b>	<b>460</b>	<b>100</b>

Majority of the Kharias possess a cycle (50.9%). The households who do not have any transport (47.8%) either do not feel the need of any transport or cannot afford for the same. The possession of electronic items reflects the poor economic status of the tribe. The table shows that majority of the households do not have any electronic item (85.9%).

#### 4.2.5 Economy

The occupation or main earning source and the monthly family income reflects the economic status of this tribe. Table below gives a clear picture of the main sources of income of the respondents.

**Table - 4.2.5a: Main earning source**

Male			Female		
Occupation	No	%	Occupation	No	%
Unemployed	10	2.4	Unemployed	75	16.3
Cultivator	18	4.1	Daily Labour	195	42.4
Annual labour	25	5.7	Govt. job	5	1.1
Daily labour	262	60.4	Rope making	71	15.4
Private job	22	5.0	Minor Forest	114	24.9
			collection		
Govt. job	5	1.3	-	-	-
Minor forest	92	21.1	-	-	-
collection					
<b>Total</b>	<b>434</b>	<b>100</b>	<b>Total</b>	<b>460</b>	<b>100</b>

Table 4.2.5a reflects the main earning source of the males and the females. Most of the males are engaged as daily labour (60.4%) and most of the females are also engaged as daily labour (42.4%). Apart from this both the males (21.1%) and the females (24.9%) collect different types of minor forest collection for their day-to-day livelihood.

The Kharias family income is reasonably low as evident from the table 4.2.5 (b). Majority of the households (75.4%)

have family income between Rs (1000-2000). The average family income as calculated is Rs 1542.4/-.

**Table – 4.2.5b: Monthly family income**

<b>Family income (in Rupees)</b>	<b>Number</b>	<b>Percentage</b>
< 1000	64	13.9
1000-2000	347	75.4
2001-3000	44	9.6
>3000	5	1.1
<b>Total</b>	<b>460</b>	<b>100</b>
<b>Average family income – Rs 1542.4/-</b>		

#### **4.2.6 Educational Status**

Educational status of the Kharia respondents is given below.

**Table - 4.2.6: Educational status**

<b>Male</b>			<b>Female</b>		
<b>Educational status</b>	<b>No</b>	<b>%</b>	<b>Educational status</b>	<b>No</b>	<b>%</b>
Illiterate	281	64.8	Illiterate	366	79.6
Lower Primary	66	15.2	Lower Primary	37	8.0
Upper Primary	39	9.1	Upper Primary	26	5.7
Middle Exam	24	5.7	Middle Exam	18	3.9
High School	20	4.6	High School	13	2.8
+2	3	0.7	+2	-	-
+3	-	-	+3	-	-
<b>Total</b>	<b>434</b>	<b>100</b>	<b>Total</b>	<b>460</b>	<b>100</b>

Table 4.2.6 reflects the educational status of both the male and female respondents of this tribe. It is found that majority of the males (64.8%) and females (79.6%) are illiterate. Thus the literacy rate of this tribe is found to be very low. However, the Kharia literary is somehow better than the Bhuyans and Juangs of Mayurbhanja.

### 4.3 REPRODUCTIVE HEALTH

Reproductive health behavior includes behavior related to marriage, maternal & child healthcare, family planning practices, nutritional status of the women etc.

#### 4.3.1 Age at Menarche

Age at menarche of the Kharia women is given below.

Age at menarche is one of the important biological determinants of fertility. The mean age at menarche of the Kharias women is found to be 13.4 years. Maximum percentages of the Kharia women attain menarche at the age of 13 to 14 years. It is interesting to note that only 0.4% women attain menarche at the age of 16 years.

**Table - 4.3.1:**  
**Age at menarche of the Ever Married Women (EMW)**

<b>Age at menarche in years</b>	<b>Number of EMW</b>	<b>Percentage</b>
10	16	3.5
11	2	0.4
12	48	10.4
13	152	33.0
14	182	39.6
15	58	12.6
16	2	0.4
17	-	-
<b>Total</b>	<b>460</b>	<b>100</b>
<b>Mean age at Menarche – 13.4</b>		

#### 4.3.2 Age at Marriage

Age at first marriage of the Kharia women is given below.

**Table – 4.3.2: Age at marriage of the Ever Married Women (EMW)**

Age group in years	Number of EMW	Percentage
< 13	20	4.3
13-15	90	19.6
16-18	212	46.1
19-21	102	22.2
> 21	36	7.8
<b>Total</b>	<b>460</b>	<b>100</b>
<b>Mean age at marriage – 17.2 years</b>		

The mean age at marriage of the Kharia women is found to be 17.2 years. Table 3.2K shows that maximum percentage of women (46.1%) get married between 16 to 18 years. It is also observed that 4.3% women get married below 13 years of age which is little early.

#### 4.3.3 Age at 1st Conception

Age at first conception of the Kharia women is given below.

**Table – 4.3.3: Age at 1st conception of the Ever Married Women (EMW)**

Age group in years	Number of EMW	Percentage
< 13	2	0.5
13-15	88	19.1
16-18	192	41.7
19-21	124	27.0
22-24	38	8.2
e" 25	16	3.5
<b>Total</b>	<b>460</b>	<b>100</b>
<b>Mean age at 1st conception – 17.98 years</b>		

The mean age at first conception is found to be 17.98 years. This shows that the gap between age at marriage and age at first conception is nearly six months. Thus as observed from the table also maximum percentage of women (41.7%) conceive between 16 to 18 years.

#### **4.3.4 Age at 1st Child Birth**

Age at first child birth of the Kharia women is given below.

**Table – 4.3.4: Age at 1st child birth of the Ever Married Women (EMW)**

<b>Age group in years</b>	<b>Number of EMW</b>	<b>Percentage</b>
<13	-	-
13-15	52	11.3
16-18	178	38.7
19-21	116	25.2
22-24	94	20.4
e" 25	20	4.3
<b>Total</b>	<b>460</b>	<b>100</b>
<b>Mean age at 1st child birth – 19.0 years</b>		

Table 4.3.4 reveals the mean age at first child birth of the Kharia women which is 19.0 years. The gap between the mean age at first marriage & the mean age at first childbirth is 1.5 years which further confirms the fact that average women conceive after six months of marriage.

#### **4.3.5 Fertility Performance**

Human fertility is responsible for the biological replacement and maintenance of the human species. Table 4.3.5 presents the fertility performance of the ever married women. The total number of conceptions, uterine wastage (abortion and stillbirth) and live-births are some of the major findings of the study.



**Table – 4.3.5: Fertility performance of the Ever Married Women (EMW)**

Number	Conception		Abortion		Stillbirth		Live-birth	
	No of EMW	%	No of EMW	%	No of EMW	%	No of EMW	%
0	4	0.9	396	86.1	412	89.6	15	3.3
1	56	12.2	44	9.6	36	7.8	74	16.1
2	78	16.9	8	1.7	6	1.4	97	21.1
3	150	32.6	6	1.3	2	0.3	146	31.7
4	114	24.8	4	0.9	4	0.9	88	19.1
5	30	6.5	2	0.4	-	-	28	6.1
6+	28	6.1	-	-	-	-	12	2.6
Total EMW	460	100	460	100	460	100	460	100
Total no of	Conception -1436		Abortion -104		Stillbirth -70		Livebirth -1270	
Mean (per woman)	3.12		0.23		0.15		2.76	

The total number of conception of the 460 Kharia women is found to be 1436 and thus the mean conception per women is 3.12 The conceptions terminating before birth are taken as uterine wastage (Abortion + Stillbirth). In this population the uterine wastage is found to be 0.38 which is a moderate value. It is further noticed that the total number of live-births of the women is 1270 and thus the mean live-births per woman is 2.76.

#### **4.3.6 Antenatal Care**

Antenatal care refers to pregnancy related health care provided by a doctor or health worker in a medical facility or at home.

**Table - 4.3.6a: Antenatal checkup received**

Antenatal checkup received		Antenatal checkup not received	
Number	Percentage	Number	Percentage
298	64.8	162	35.2
Iron Folic Acid (IFA)	Tetanus Toxoid (TT)	-	-
No of EMW	%	No of EMW	%
146	31.7	207	45.0
		-	-

Table 4.3.6a highlights the acceptance of the maternal care services provided by the Government. 64.8% women received antenatal checkup where as 35.2% did not receive any antenatal checkup. It is also observed that 31.7% of the women have taken IFA tablets and 45.0% of the women have taken at-least one TT vaccine.

**Table – 4.3.6b: Reasons for not availing antenatal checkup**

<b>Reasons for not availing antenatal checkup</b>	<b>Number of EMW</b>	<b>Percentage</b>
Not required	109	23.7
Elders did not allow	121	26.3
Non availability of staff	49	10.7
Timing of PHC not suitable	22	4.8
No supply of medicine	119	25.9
Any other reason	30	6.5
No response	10	2.2
<b>Total</b>	<b>460</b>	<b>100</b>

There are several reasons reported by the women for not availing any antenatal checkup. Maximum percentage of women reported that elders did not allow (26.3%) and there is no supply of medicine (25.9%) while 23.7% women also reported that it is not required and pregnancy is a normal phenomenon.

#### **4.3.7 Natal Care**

One of the important major thrust areas of the RCH programme in India is to encourage and promote deliveries under proper hygienic conditions and under the supervision of trained health professionals.

**Table – 4.3.7a: Place of delivery**

<b>Place of delivery</b>	<b>No of EMW</b>	<b>Percentage</b>
Home	367	79.8
Hospital	93	20.2
<b>Total</b>	<b>460</b>	<b>100</b>

Table 4.3.7a shows that in spite of the various schemes of Government for promoting institutional delivery, 79.8% women still have home deliveries and 20.2% go for institutional delivery.

**Table – 4.3.7.2b: Birth assisted by Doctor/ANM/ Elderly woman**

Individual attending the delivery					
Doctor		ANM/LHV		Elderly woman	
No of EMW	%	No of EMW	%	No of EMW	%
70	15.2	26	5.7	364	79.1
Total No of EMW - 460					

Table 3.7.2b provides information on assistance during delivery by doctors, health professionals (ANM or LHV) & elderly women. It is seen that maximum percentage of women (79.1%) are assisted by the elderly women while 5.7% receive assistance from ANM and 15.2% avail assistance from the doctors.

### 4.3.8 Child Care

The healthy survival of the newborn baby is dependent on the health status of the mother and the feeding & weaning practices among infants which have always been an area of special interest where child rearing practices are concerned.

Table 4.3.8a presents the details of the initiation of breast feeding after childbirth. Maximum percentages of women (56.3%) initiate



Traditional cloth swing for babies

breast feeding on the second day while 14.3% of the women initiate breast feeding on the first day and 17.0% of the women initiate breast feeding on the third day. Thus the practice of discarding colostrums is prevailing in this tribe.

**Table – 4.3.8a: Initiation of breastfeeding**

<b>Initiation of breast feeding</b>	<b>No of EMW</b>	<b>Percentage</b>
1st day	66	14.3
2nd day	259	56.3
3rd day	78	17.0
No response	57	12.4
<b>Total</b>	<b>460</b>	<b>100</b>

**Table – 4.3.8b: Duration of breast feeding & introduction of supplementary food**

<b>Duration</b>	<b>Duration of breast feeding</b>		<b>Breast feeding along with supplementary food</b>	
	No of EMW	Percentage	No of EMW	Percentage
6 month	36	7.8	231	50.3
1 year	199	43.3	179	38.9
2 year	225	48.9	50	10.8
<b>Total</b>	<b>460</b>	<b>100</b>	<b>460</b>	<b>100</b>

Table 4.3.8b highlights the duration of breast feeding and the introduction of supplementary food. It is observed that maximum percentage of women breast feed their babies for a period of one year (43.3%) and two year (48.9%) while only 7.8% women breast feed their babies for only six months. Thus a prolonged duration of breast feeding is practiced among the Kharia women.

The introduction of supplementary food in right amount and frequency is important for appropriate infant and child feeding practices. It is noticed that normally the Kharia women introduce supplementary food at the age of six months (50.3%) whereas 38.9% women start giving

supplementary food at the age of one year. Thus it is observed that the Kharia women introduce the supplementary food at the right age.

**Table – 4.3.8c: Immunization status of the children**

No of Ever Married Women (EMW)												
	At least one		BCG		DPT		Polio		Vit - A		Measles	
	No	%	No	%	No	%	No	%	No	%	No	%
Yes	339	73.7	318	69.1	321	69.8	325	70.7	310	67.4	305	66.3
NO	121	26.3	142	30.9	139	30.2	135	29.3	150	32.6	155	33.7
Total	460	100	460	100	460	100	460	100	460	100	460	100

Table 3.8.3K reveals the coverage of various vaccines (BCG, DPT, Polio, Vit-A & Measles) among the children. It is noticed that 73.7% mothers immunized their children with at-least one vaccine while 26.3% mothers do not immunize their children. The table also shows that maximum percentage of mothers avail the Polio vaccine (70.7%) , BCG (69.1%) and DPT (69.8%) vaccine while 67.3% mothers give their children the Vit-A supplementation and Measles is received by slightly less percentage of children.

### 4.3.9 Family Planning

The use of family planning methods is of vital importance to control the fertility of the population. Of all the methods, the permanent method or the sterilization method (Vasectomy/Tubectomy) is found to be a highly accepted method.

**Table – 4.3.9: Family welfare data (Permanent method)**

Method	Adopted		Not adopted	
	Number	Percentage	Number	Percentage
Sterilization	255	55.4	205	44.6

Table 4.3.9 highlights that 55.4 % of the Kharias accept the permanent method (Vasectomy/Tubectomy) of fertility regulation while 44.6% of the Kharias do not adopt this method.

#### 4.4 NUTRITIONAL ANALYSIS

The nutritional status of the tribe can be evaluated using internationally accepted BMI guidelines. BMI is generally considered as a good indicator of not only the nutritional status but also the socio-economic status of the population.

**Table - 4.4: Nutritional status**

Parameter	Male (n – 157)	Female (n -191)
	Mean	Mean
Height (in cm)	158.8	148.4
Weight (in kg)	48.3	39.8
BMI (in kg/m <sup>2</sup> )	19.1	18.2

Table 4.4 shows the mean height, weight and computed BMI. The mean height of the Kharia male is found to be 158.8 cm and that of the female are 148.4 cm while the mean weight of the male are 48.3 kg and that of the female



Interested respondents waiting for measurement

are 39.8 kg. Thus the mean BMI of male is calculated as 19.1 kg/m<sup>2</sup> and that of the female is 18.2 kg/m<sup>2</sup>. This shows that the BMI of the females is less than that of the males. Thus the males come under the range of normal BMI (18.5-24.9) while the females are slightly underweight.

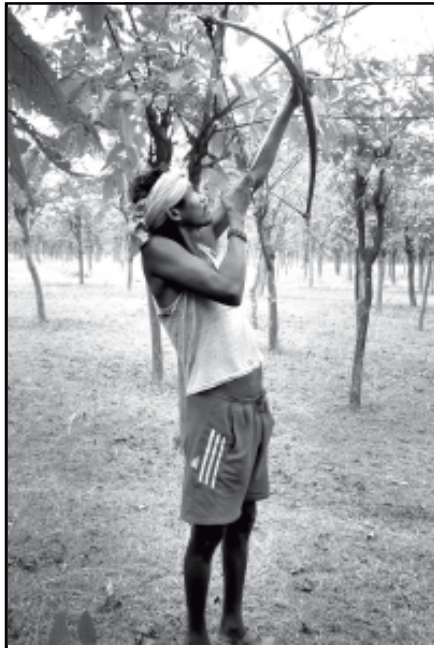
# LODHA

## 5.1 THE TRIBE

Lodhas are an ex-criminal Scheduled Tribe of Orissa. They are famous for their aggressiveness and criminal activities. Their neighbours have always held them in contempt. The intensity of criminality among the Lodha has been a matter of grave concern to the custodians of law and order. The problem of Lodha criminality is of a psycho-emotional nature. After independence, the welfare showed some concern to bring the Lodha into the mainstream of the population. Attempts have been made to rehabilitate them socio-economically in rehabilitation colonies. They have been provided with land, houses agricultural inputs and alternative or subsidiary vocations to improve their lot. A micro-project called the Lodha Development Agency, which comes under the Harijan and Tribal Welfare Department, founded in 1986, has implemented various welfare

schemes for the socio-economic development of the Lodha in Mayurbhanj District. Lodha rehabilitation colonies have been set up at Morada and Suliapada Blocks in the district. All these efforts to draw the Lodha away from their criminal activities have yet to produce satisfactory results.

Like any other forest-dwelling communities, the Lodha trace their descent from the famous Savaras described in the Hindu puranas and great



Lodha youth with a bow

epics, the Ramayana and the Mahabharata. Their legendary origin tells us that they are the descendants of the mythical Savara king of Nilanchal and the legendary hero Vishwvasu. He was the first worshipper of the idol of Lord Nilamadhav, which was later stolen by Vidyapati, the Brahman Minister of King Indradyumna of Puri, and installed in Puri as Lord Jagannath. As such the Lodha identify themselves with the Vishwvasu group of Savaras and regard the Vyadhev, Kirta and Jara groups of Savara as their kin. Hence, the Lodha call themselves the Lodha Savara.

Eminent anthropologists like Dr NK Bose believe that the Lodha were exclusively a jungle tribe thriving on hunting and food-gathering like the Savaras as described in the Hindu puranas and epics. They seem to have belonged to the Mundari group. In course of time their prolonged interaction with Hindu castes has accelerated their Hinduization.

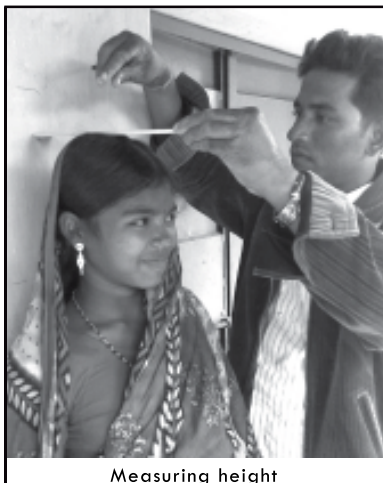




Lodha Development Agency at Moroda

### 5.1.1 Physical Feature

As regards their physical affinities, they belong to the Vediol racial group. In this respect they are very close to the Hill Kharia, Malers of Rajmahal and Chenchu of the Krishna Basin. Stature is medium. Average height of the males is 164 cm and that of the females is 151 cm. Complexion is brown to dark brown. Scanty hair on face



Measuring height



Taking weight. Note the tile roof of the house

and body. Mongolian eye fold is slightly traced among the elderly population. The Lodha are endowed with a strong physique and are capable of doing hard work. But they are bit lazy.

### **5.1.2 Population and Distribution**

The Lodha population in Orissa was 7459 at the 1991 census, increasing to 8905 with a decennial growth rate of 19.39 per cent by the 2001 census. The sex ratio as per 2001 census was 1029 males per 1000 females.

The jungle-clad hilly terrains of the Chotanagpur plateau running across the Bengal-Orissa-Bihar border including the Mayurbhanj District in Orissa, Singhbhum District in Bihar and Midnapur district in West Bengal from the homeland of the Lodha. Midnapur and Singhbhum have large concentrations of the tribe. In Orissa the Lodha population is small and mostly confined to two blocks, i.e. Moroda and Suliapada in the Sadar sub-division of Mayurbhanj District.

### **5.1.3 Village**

The Lodha live in large villages belonging exclusively to them and sometimes together with other communities. Some of the selected village have more than 100 households. Normally such large villages are not marked among other primitive tribes. As Lodhas are mostly plain dwellers their settlements have large number houses. The Lodha villages are well communicated and most of the village have tube wells. Electricity connection is provided to a few Lodha villages. Nearly 20 percent Lodha use electricity. Primary Health Centre, Tribal Development Centre, Primary schools and Educational Complex have good approach roads.

### **5.1.4 House and Household Articles**

The settlement pattern is irregular, with houses scattered here and there. They have small straw-thatched huts with a rectangular ground plan and mud walls. The

majority of the huts have all-purpose single rooms with a raised platform near the hearth called isan or the seat of ancestral spirits. This is a trait borrowed from the caste Hindus. Goats and cattle are kept on the side verandah. Well-to-do cultivators have larger multi-roomed houses with spacious courtyards and kitchen gardens fenced with vertical bamboo poles. Their households belongings are scanty. Bicycle is found in majority houses. Radio and T.V. and recording is noticed with nearly 20% houses

The Lodha have few household articles. For cooking and serving food they have husking levers, earthenware pots, iron pans, aluminium vessels and plates. Well-to-do families keep brass utensils, which are mortgaged for loan or sold in times of need. These implements for hunting, fishing, agriculture and food-gathering consists of bows, arrows, crowbars, axes, billhooks, scythes, ploughs, knives, spades, mattocks, etc. These are generally purchased from the local blacksmith or weekly market.



Author with Lodha Development officer and other staff.

### **5.1.5 Food and Dress**

Rice is the staple food of the Lodha and is supplemented by pulses, seasonal fruits, roots and tubers and non-vegetarian items like meat, chicken, eggs, fish, etc depending upon the family budget and their availability. They usually eat boiled rice soaked with water and its gruel. Vegetable items are either boiled or roasted.

They normally eat food twice daily, i.e. in the morning and evening. If food is available they go for a third meal at noon or in the afternoon. In times of scarcity of food they manage with one meal or starve for days together. The Lodha are addicted to narcotics like country liquor and tobacco. They are particularly fond of handia (rice beer), bidi (country-made cigarettes) and gudakhu (tobacco paste), which they use regularly.



A Lodha family

The Lodha wear cheap and coarse type of clothes. Men use dhotis, chaders, napkins, banyans and shirts. Women wear saris and blouses. Small children up to five years of age usually go naked. Grown-up boys wear a thin piece of loin cloth fastened to string around the waist. Girls wear frocks and skirts. Due to their poverty, they manage with just a few items of clothing and cannot afford to keep it clean. Women adorn themselves with necklaces and bangles made of aluminium, silver, brass and glass. They also tattoo their upper arms and chest with floral designs.

#### **5.1.6 Religion and Festivals**

The Lodha strongly believe in the unseen supernatural world. The benevolent beings are Bhagwan, the Supreme being; Dharam Devta, the God of Righteousness; Basumata, the mother earth; Sitala, the village diety and Goddess of Epidemics; Baram or Garam, the Jungle diety and the Tutelary Diety of the various

types of ghosts and evil spirits called Kundra, Chirguni, Fretasini, Daini, Kalporus, Baghoa, Gomua, Janka, Kath, etc.

The Lodha observe a number of magico-religious rituals and festivals throughout the year to propitiate supernatural beings to prevent misfortunes. Important festivals like Sitala Puja and Chandi Puja in the month of Baisak, Mansa Puja in Jaistha, Jathel in Sraban, Asthani Puja in Asvin, Bandana in Kartik, Laxmi Puja in Agrahayan, Natun Hanri i.e. the annual Sradha ceremony, and ancestor worship in Chaitra are observed by the Lodha.

### **5.1.7 Economic Pursuit**

The Lodha are economically background. Most of them are at the pre-agricultural stage of the economy. Their occupational pattern varies according to the local environment. The Lodha who live in the forest areas stick to their age-old pursuits like hunting, food-gathering, the collection of minor forest produces, tusser cultivation, etc. These days, they also work for the forest department and



Cycle load of Kendu leaves

forest contractors in plantation programmes and timber operations. Apart from the collection of edible fruits, roots and tubers for their own consumption, they collect kendu



Collection of Sabai grass

leaves to roll bidi, sal and siali leaves to make leaf cups and plates, sabai grass to make ropes and also tussar cocoons, honey, lac, resin, sal seeds, mohua, firewood, etc, all of which they sell in the neighbourhood to earn their livelihood. They hunt with the traditional bow and arrow and use different kind of traps and snares to catch animals. With the arrival of rapid deforestation and the prohibitory forest laws they have been deprived of their forest-based subsistence. Some Lodha have therefore resorted to unfair means and clandestine activities to keep body and soul together.

The Lodha living in the plains mainly thrive on wage-earning as agricultural labourers and construction workers. Very few own cultivable lands, the produce of which is anyway insufficient to meet their household consumption needs. Most Lodha are landless or marginal farmers. Some Lodha have taken up share cropping.

Unlike their Hindu caste neighbours, the Lodha do not attach any social stigma to any kind of occupation. They never hesitate to take up any kind of vocation



available to them irrespective of their socio-economic status. The Lodha earn and supplement their livelihood from a variety of occupations like petty trades, rearing of livestock, carpentry, weaving, mat-making, rope making. Fishing and the catching of reptiles such as snakes, lizards, tortoise and alligators from ponds and streams, are their favourite pastime as well as a subsidiary occupation. Fish and tortoise are eaten and the surplus is sold. They also earn money by selling the skin of reptiles, which are in great demand for making instruments, shoes and fashionable articles. They prefer to idle away their time indulging in gossip and catching fish rather than doing any strenuous work. The Lodha women are comparatively more active and industrious than the men. Despite of their major traditional role of housekeeping and child-rearing, the Lodha women take part in all economic pursuits with the men except ploughing, thatching, and catching snakes and reptiles, which are forbidden to them. Children lend a helping hand to their superiors in these activities.

#### **5.1.8 Political Organisation**

The Lodha have their own traditional village panchayat, which decides offences relating to the violation of tribal customs, norms and taboos. It can impose fines on and ostracize the offender and grant permission for sanga marriages. The village headman, called mukhia or sardar, presides over its meetings and gives his verdict in consultation with senior members. Everyone has to obey his verdict. The mukhia or sardar is assisted by the village messenger, the dakua or athgharia, who always comes from the Kotal clan. There are many magico-religious functionaries viz. deheri, the village priest, talia or chharidar, the assistant to the deheri, hantakar, the ritual sacrificer, gunni, the medicine man, byakra, the shaman in Lodha villages. The deheri conducts the worship of the village gods and deities and all the communal rituals in the village. His post is hereditary.

### **5.1.9 Bio-Social System**

The Lodha social system is characterized by its clan organization. They have nine clan groups which they refer as gotras. These clans are exogamous and patrilineal in nature. Each individual by his or her birth belongs to a particular clan. While clan identity remains unchanged throughout life for men that of the women changes after marriage. Each clan has a totemic origin, and the totemic objects are considered to be very sacred. Certain taboos are observed by clan members in order to pay respect to their respective totemic objects. The Lodha do not have a very cordial relationship with neighbouring communities. Their neighbours hold them in contempt for their criminal activities.

#### **a) Marriage**

Beside arranged marriages, instances of other kinds of marriages, such as child marriage, love marriage, marriage by service, marriage by exchange of sisters, gharjamain type of marriage, levirate, sororate, and the remarriage of widows and divorcees are also found. In case of child marriage a second marriage ceremony is performed when the girl attains puberty, and then she is allowed to sleep with her husband. Levirate, sororate and widow remarriages are called sanga. These marriages involve no payment of bride price. However, such marriages are finalized after payment of a royalty in cash called gram manya to the groom's village panchayat, and then formal permission from the village headman is obtained. The bride in a sanga marriage is called sangali bou and her social status is inferior to that of a bride in a regular arranged marriage. Lodha society allows a man to divorce his wife for reasons of infidelity, indolence and incompatibility. A woman cannot divorce her husband formally, but she can compel him to divorce her by deserting him and going to stay with her parents or lover. No ritual formalities are observed when people divorce.



### **b) Birth**

From birth to death, the life of a Lodha passes through a series of rituals at different phases of life. Ceasing menstruation is regarded as an indication of pregnancy. A pregnant woman observes a number of taboos regarding her food, sex life and movements. Goat and fowl are sacrificed and fruits offered to the local deities to bring about a smooth delivery and the well-being of mother and child. The help of a local dhai or midwife is summoned for the birth. Birth pollution is observed for 21 days, during which the mother and the baby remain in confinement, purificatory ritual called ekusia is performed. The baby is breast-fed by the mother till he or she is six months old or more. After six months the hair-cutting and rice-feeding ceremonies are held on a Tuesday, which the Lodha consider an auspicious day.

### **c) Family**

The family is the smallest basic social unit in the Lodha system. Most Lodha families are elementary or nuclear in type and consist of the married couple and their unmarried children. Some examples of joint and extended families, which include old and dependent parents, unmarried, married and/or divorced brothers, sisters, sons and daughters are also found. Through conjugal infidelity, there are instances of divorce and remarriage of either of the spouses. In such cases children born in previous marriage may stay with their stepfather or stepmother. Polygamy, or a man having more than one wife is permitted. The Lodha family is patrilineal and patriarchal in nature. Social status and family property are inherited in the male line. The father or senior male is regarded as the family head. In their hard struggle for survival, the family members act as a close-knit group helping each and

contributing their share of their day-to-day life for the well-being of the family. Children are well cared for and are brought up with love and fondness. The best food items are served to the children first. Growing children assist their parents in domestic and outdoor activities. Junior family members always respect their superiors. Like the Hindu kinship system, joking and avoidance relationships are found among certain categories of kin. A joking relationship is maintained between grandparents and grandchildren, younger brother and elder brother's wife, husband and wife's sister.

#### **d) Death**

The Lodha observe elaborate death rituals in according with Hindu traditions. The dead body is either buried or cremated. Mourning and death pollution are observed for ten days. On the tenth and eleventh days purificatory rituals are performed. The relatives and co-villagers are entertained with a feast. The annual Sradha ceremony is performed every year on the last day of the month of Chaitra to appease the ancestral spirits.

**Table 5.1: Total household coverage of the Lodhas**

<b>Blocks covered</b>	<b>Gram Panchayats covered</b>	<b>villages covered</b>	<b>Households covered</b>
2	5	7	524

## **5.2 SOCIO-ECONOMIC CHARACTERISTICS**

The important characteristic features of this tribe which distinguish them from the general population are discussed in this section.

### **5.2.1 Age Group**

The demographic and health seeking behavior is more or less associated with several characteristics such

as age, marital status, etc. Age, sex distribution of the Lodha respondents is given below.

**Table - 5.2: Distribution of the population under study by age group**

Age Group in years	Male		Female	
	No	%	No	%
15-19	-	-	28	5.3
20-24	44	9.0	100	19.1
25-29	80	16.4	96	18.3
30-34	136	27.9	116	22.1
35-39	60	12.3	72	13.7
40-44	44	9.0	104	19.8
45-49	88	18.0	8	1.5
49+	36	7.4	-	-
<b>Total</b>	<b>488</b>	<b>100</b>	<b>524</b>	<b>100</b>

Table 5.2.1 highlights the age-sex composition of this tribe from the age-group 15 to 49 years. The table shows that maximum percentage of both the male and female respondents are in the age-group 30-34 years. Nearly 5% female respondents are in the age group of 15-19 years.

### **5.2.2 Marital Status**

The marital status provides the fundamental information regarding the vulnerable section responsible for the fertility. The data in table 5.2.2 states the marital status of the women.

**Table – 5.2.2: Distribution of women by marital status.**

	Female			
Status	Married	Widowed	D/S	Total
Number	488	24	12	524
Percent	93.1	4.6	2.3	100%

### 5.2.3 Housing Pattern

The houses are scattered randomly and the settlement pattern is irregular. Majority of the houses of the study area are constructed with mud wall (97.7%) and floor (98.5%) while the roof is made of tiles (87.8%). Some small straw thatched huts (7.6%) are also seen.

**Table – 5.2.3: Housing pattern of the population**

Roof material			Wall			Floor		
Category	No	%	Category	No	%	Category	No	%
Thatched	40	7.6	Mud	512	97.7	Mud	516	98.5
Tiles	460	87.8	Brick + mud	4	0.8	Cement	8	1.5
Asbestos	24	4.6	Brick + cement	8	1.5	-	-	-
<b>Total</b>	<b>524</b>	<b>100</b>	<b>Total</b>	<b>524</b>	<b>100</b>	<b>Total</b>	<b>524</b>	<b>100</b>

### 5.2.4 Lifestyle Indicators

The life style indicators reflect the socio-economic status of this tribe. The socio-economic status directly or indirectly influences the reproductive health of the women as also the nutritional status of the tribe.

The majority of the houses have all purpose single room (87.8%). Some well to do families have multi-roomed houses with spacious courtyards.

**Table – 5.2.4a: No of living rooms**

No of living rooms	Number	Percentage
1	460	87.8
2	24	4.6
3	28	5.3
> 3	12	2.3
<b>Total</b>	<b>524</b>	<b>100</b>

**Table – 5.2.4b: Kitchen garden/Kitchen room/Fuel used**

Kitchen garden				Kitchen room				Fuel used			
Yes		NO		Yes		NO		Dry stick		Wood	
No	%	No	%	No	%	No	%	No	%	No	%
32	6.1	492	93.9	24	4.6	500	95.4	376	71.8	148	28.2

Most of the houses of the Lodhas do not have kitchen garden (93.9%) and separate kitchen rooms (95.4%). Only few houses have kitchen garden fenced with vertical bamboo poles and also a separate kitchen room. Table 2.4b also reveals the fuel used for cooking by the Lodhas. Since they live in the forest areas, they utilize the Jungle for collecting dry stick and wood. 71.8 % of this tribe depends on dry stick for fuel.

**Table –5.2.4c: Source of drinking water**

Well		Tube-well	
No	%	No	%
448	85.5	76	14.5

Majority of the villages have well and tube-well which shows that ground water level is relatively high in this areas. 85.5% depend upon well for drinking water while only 14.5 percent depend upon tube-well.

**Table -5.2.4d: Transport/Electronic item**

Transport			Electronic item		
Item	No	%	Item	No	%
Cycle	384	73.3	Radio	88	16.8
Bike	24	4.6	Television	8	1.5
Nil	116	22.1	Nil	428	81.7
<b>Total</b>	<b>524</b>	<b>100</b>	<b>Total</b>	<b>524</b>	<b>100</b>

Majority of the Lodhas possess a cycle (73.3%). The households who do not have any transport either do not feel the need of any transport or cannot afford for the same. The possession of electronic items reflects the poor economic status of the tribe. The table shows that majority of the households do not have any electronic item (81.7%).

### **5.2.5 Economy**

The occupation or main earning source and the monthly family income reflects the economic status of this

tribe. The following table reveals the main earning source of the Lodha respondents.



**Table - 5.2.5a: Main earning source**

Male			Female		
Occupation	No	%	Occupation	No	%
Cultivator	19	3.8	Unemployed	44	8.4
Annual labour	216	44.3	Labour	424	80.9
Daily labour	242	49.6	Govt. job	8	1.5
Private job	4	0.8	Rope making	20	3.8
Govt. job	7	1.5	Forest collection	28	5.3
<b>Total</b>	<b>524</b>	<b>100</b>	<b>Total</b>	<b>524</b>	<b>100</b>

Table 5.2.5a reflects the main earning source of the males and the female respondents. Most of the males are engaged as annual labour (44.3%) and daily labour (49.6%) while most of the females are engaged as any type of labour (80.9%). Apart from this the females collect different types of leaves such as sal and siali to make leaf cups and plates and sabai grass to make ropes.

**Table – 5.2.5b: Monthly family income**

<b>Family income (in Rupees)</b>	<b>Number</b>	<b>Percentage</b>
< 1000	224	42.7
1000-2000	292	55.7
2001-3000	-	-
>3000	8	1.5
<b>Total</b>	<b>524</b>	<b>100</b>
<b>Average family income – Rs 1309/-</b>		

The Lodhas family income is reasonably low as evident from the table 5.2.5b Majority of the households (55.7%) have family income between Rs (1000-2000). The average family income as calculated is Rs 1309/-.



Students with teachers and staff

### **5.2.6 Educational Status**

Educational status of the Lodha respondents are presented bellow.

**Table - 5.2.6: Educational status**

Male			Female		
Educational status	No	%	Educational status	No	%
Illiterate	350	71.8	Illiterate	440	83.9
Lower Primary	41	8.4	Lower Primary	48	9.2
Upper Primary	19	3.8	Upper Primary	20	3.8
Middle Exam	26	5.3	Middle Exam	8	1.5
High School	34	6.9	High School	4	0.8
+2	11	2.3	+2	4	0.8
+3	7	1.5	+3	-	
<b>Total</b>	<b>488</b>	<b>100</b>	<b>Total</b>	<b>524</b>	<b>100</b>

Table 5.2.6 reflects the educational status of both the males and female respondents of this tribe. It is found that majority of the males (71.8%) and females (83.9%) are illiterate. Thus the literacy rate of this tribe is found to be very low. Female literacy is still worse.

### 5.3 REPRODUCTIVE HEALTH

Reproductive health behavior includes behavior related to marriage, maternal & child healthcare, family planning practices, nutritional status of the women etc.



Moroda Health Centre



### 5.3.1 Age at Menarche

Age at menarche of the Lodha women is presented below.

**Table - 5.3.1: Age at menarche of the Ever Married Women (EMW)**

Age at menarche in years	Number of EMW	Percentage
10	16	3.1
11	80	15.3
12	172	32.8
13	152	29.0
14	96	18.3
15	-	-
16	-	-
17	8	1.5
<b>Total</b>	<b>524</b>	<b>100</b>
<b>Mean Age at Menarche – 12.5 Years</b>		

Age at menarche is one of the important biological determinants of fertility. The mean age at menarche of the Lodha women is found to be 12.5 years. It is interesting to note that the menarcheal age of 1.5% women is 17 years which is noticeably late.

### 5.3.2 Age at Marriage

Age of first marriage of the Lodha female respondents is given in the following table.

**Table – 5.3.2: Age at marriage of the Ever Married Women (EMW)**

Age at menarche in years	Number of EMW	Percentage
< 13	36	6.9
13-15	172	32.8
16-18	228	43.5
19-21	88	16.8
<b>Total</b>	<b>524</b>	<b>100</b>
<b>Mean age at marriage – 16.24 years</b>		

The mean age at marriage of the Lodha women is found to be 16.24 years. Table 5.3.2 shows that maximum percentages of women (43.5%) get married between 16 to 18 years. It is also observed that 6.9% women get married below 13 years of age which is little early.

### **5.3.3 Age at 1st Conception**

Age at first conception of the Lodha females is presented below.

**Table – 5.3.3: Age at 1st conception of the Ever Married Women (EMW)**

<b>Age at menarche in years</b>	<b>Number ofEMW</b>	<b>Percentage</b>
< 13	16	3.1
13-15	164	31.3
16-18	220	41.9
19-21	108	20.6
22-24	16	3.1
Total	524	100
<b>Mean age at 1st conception – 16.71 years</b>		

The mean age at first conception is found to be 16.71 years. This shows that the gap between age at marriage and age at first conception is nearly six months. Thus as observed from the table also maximum percentage of women (41.9%) conceive between 16 to 18 years.

### **5.3.4 Age at 1st Child Birth**

Age at first child birth of the Lodha women is depicted in the following table.

**Table – 5.3.4: Age at 1st child birth of the  
Ever Married Women (EMW)**

<b>Age at menarche in years</b>	<b>Number of EMW</b>	<b>Percentage</b>
<13	16	3.1
13-15	120	22.9
16-18	180	34.4
19-21	128	24.4
22-24	72	13.7
e" 25	8	1.5
<b>Total</b>	<b>524</b>	<b>100</b>
<b>Mean age at 1st child birth – 17.87 years</b>		

Table 5.3.4 reveals the mean age at first child birth of the Lodha women which is 17.87 years. The gap between the mean age at first marriage & the mean age at first childbirth is 1.5 years which further confirms the fact that average women conceive after six months of marriage.

### **5.3.5 Fertility Performance**

Human fertility is responsible for the biological replacement and maintenance of the human species. Table 5.3.4 presents the fertility performance of the ever married women. The total number of conceptions, uterine wastage (abortion and stillbirth) and live-births are some of the major findings of the study.

**Table – 5.3.5: Fertility performance of the Ever Married Women (EMW)**

Number	Conception		Abortion		Stillbirth		Live-birth	
	No of EMW	%	No of EMW	%	No of EMW	%	No of EMW	%
0	12	2.3	468	89.3	484	92.4	20	3.8
1	44	8.4	44	8.4	32	6.1	64	12.2
2	132	25.2	8	1.5	8	1.5	140	26.7
3	136	25.9	4	0.8	-	-	128	24.2
4	140	26.7	-	-	-	-	132	25.2
5	56	10.9	-	-	-	-	36	6.9
6+	4	0.8	-	-	-	-	4	0.8
Total EMW	524	100	524	100	524	100	524	100
Total no of	Conception-1583		Abortion -74		Stillbirth -47		Livebirth -1462	
Mean(per woman)	3.02		0.14		0.09		2.79	

The total number of conception of the 524 Lodha women is found to be 1583 and thus the mean conception per women is 3.02. The conceptions terminating before birth are taken as uterine wastage (Abortion + Stillbirth). In this population the uterine wastage is found to be 0.23 which is a moderate value. It is further noticed that the total number of live-births of the women is 1462 and thus the mean live-births per woman is 2.79.

### 5.3.6 Antenatal Care

Antenatal care refers to pregnancy related health care provided by a doctor or health worker in a medical facility or at home.

**Table - 5.3.6a: Antenatal checkup received**

Antenatal checkup received				Antenatal checkup not received	
Iron Folic Acid (IFA)		Tetanus Toxoid (TT)			
No of EMW	%	No of EMW	%	No of EMW	%
68	12.98	68	12.98	456	87.02
Total No of EMW-68				Total No of EMW-456	

Table 5.3.6a highlights the acceptance of the maternal care services provided by the Government. Only 12.98% women received antenatal checkup where as 87.02% did not receive any antenatal checkup. It is also observed that all the women (12.98%) who have received antenatal checkup have taken IFA tablets and at-least one TT vaccine.

**Table – 5.3.6b: Reasons for not availing antenatal checkup**

<b>Reasons for not availing antenatal checkup</b>	<b>Number of EMW</b>	<b>Percentage</b>
Not required	134	25.6
Elders did not allow	38	7.3
Non availability of staff	21	4.0
Timing of PHC not suitable	43	8.2
No supply of medicine	188	35.9
Any other reason	56	10.7
No response	44	8.4
<b>Total</b>	<b>524</b>	<b>100</b>

There are several reasons reported by the women for not availing any antenatal checkup. Maximum percentage of women (35.9%) reported that there is no supply of medicine while 25.6% women also reported that it is not required and pregnancy is a normal phenomenon.

### **5.3.7 Natal Care**

One of the important major thrust areas of the RCH programme in India is to encourage and promote deliveries under proper hygienic conditions and under the supervision of trained health professionals.

**Table – 5.3.7a: Place of delivery**

<b>Place of delivery</b>	<b>No of EMW</b>	<b>Percentage</b>
Home	504	96.2
Hospital	20	3.8
<b>Total</b>	<b>524</b>	<b>100</b>

Table 5.3.7a shows that in spite of the various schemes of Government for promoting institutional delivery, 96.2% women have home deliveries and only 3.8% go for institutional delivery.

**Table – 5.3.7b: Birth assisted by Doctor/ANM/  
Elderly woman**

<b>Individual attending the delivery</b>					
<b>Doctor</b>		<b>ANM/LHV</b>		<b>Elderly woman</b>	
No of EMW	%	No of EMW	%	No of EMW	%
20	3.8	136	25.9	368	70.2
Total No of EMW - 524					

Table 5.3.7b provides information on assistance during delivery by doctors, health professionals (ANM or LHV) & elderly women. It is seen that maximum percentage of women (70.2%) are assisted by the elderly women while 25.9% receive assistance from ANM and only 3.8% avail assistance from the doctors.

### **5.3.8 Child Care**

The healthy survival of the newborn baby is dependent on the health status of the mother and the feeding & weaning practices among infants which have always been an area of special interest where child rearing practices are concerned.

**Table – 5.3.8a: Initiation of breastfeeding**

<b>Initiation of breast feeding</b>	<b>No of EMW</b>	<b>Percentage</b>
1st day	440	84.0
2nd day	37	7.1
3rd day	36	6.9
No response	11	2.1
<b>Total</b>	<b>524</b>	<b>100</b>

Table 5.3.8a presents the details of the initiation of breast feeding after childbirth. It is interesting to note that maximum percentage of women (84%) initiate breast feeding on the first day. Thus the practice of discarding colostrums as observed among various tribes is not reflected in this tribe.

**Table – 5.3.8b: Duration of breast feeding & introduction of supplementary food**

Duration	Duration of breast feeding		Breast feeding along with supplementary food	
	No of EMW	Percentage	No of EMW	Percentage
6 month	60	11.5	116	22.1
1 year	464	88.5	400	76.3
2 year	-	-	8	1.5
<b>Total</b>	<b>524</b>	<b>100</b>	<b>524</b>	<b>100</b>

Table 5.3.8b highlights the duration of breast feeding and the introduction of supplementary food. It is observed that maximum percentage of women (88.5%) breast feed their babies for a period of one year while only 11.5% women breast feed their babies for only six months. Thus a prolonged duration of breast feeding is practiced among the Lodha women.

The introduction of supplementary food in right amount and frequency is important for appropriate infant and child feeding practices. It is noticed that normally the Lodha women introduce supplementary food at the age of one year (76.3%) whereas 22.1% women start giving supplementary food at the age of six months.

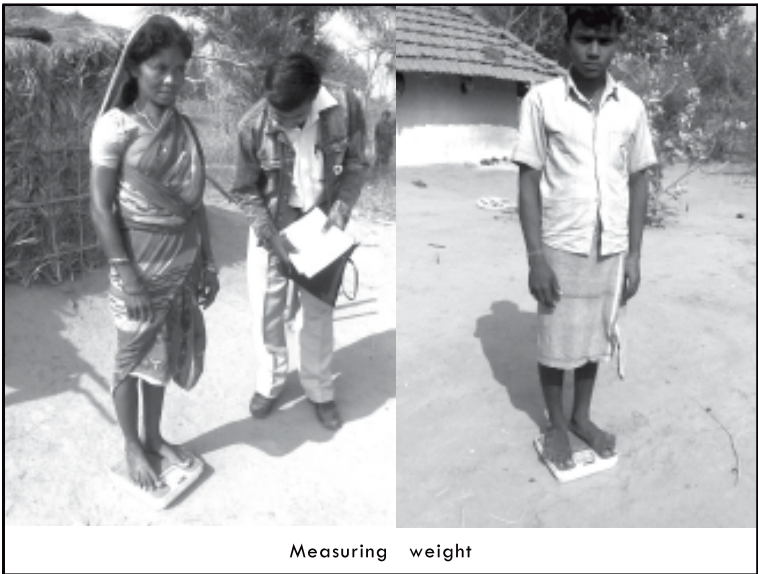
**Table – 5.3.8c: Immunization status of the children**

No of Ever Married Women (EMW)												
	At least one		BCG		DPT		Polio		Vit - A		Measles	
	No	%	No	%	No	%	No	%	No	%	No	%
Yes	504	96.2	500	95.4	512	97.7	276	52.7	160	30.5	132	25.2
NO	20	3.8	24	4.6	12	2.3	248	47.3	364	69.5	392	74.8
Total	524	100	524	100	524	100	524	100	524	100	524	100

Table 5.3.8c reveals the coverage of various vaccines (BCG, DPT, Polio, Vit-A & Measles) among the children. It is noticed that 96.2% mothers immunized their children with at-least one vaccine while 3.8% mothers do not immunize their children. The table also shows that maximum percentage of mothers avail the BCG (95.4%) and DPT (97.7%) vaccine while 52.7% mothers give their children the Polio vaccine and the Vit-A and Measles is received by considerably less percentage of children.

### 5.3.9 Family Planning

The use of family planning methods is of vital importance to control the fertility of the population. Of all the methods, the permanent method or the sterilization method (Vasectomy/Tubectomy) is found to be a highly accepted method.



**Table – 5.3.9: Family welfare data (Permanent method)**

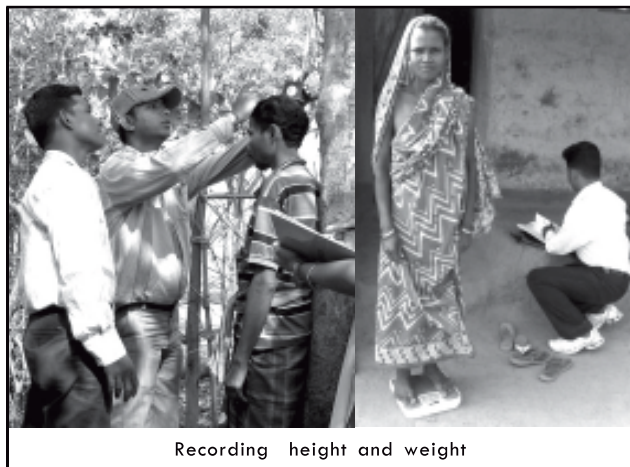
Method	Adopted		Not adopted	
	Number	Percentage	Number	Percentage
Sterilization	288	55.0	236	45.0



Table 5.3.9 highlights that 55% of the Lodhas accept the permanent method (Vasectomy/Tubectomy) of fertility regulation.

## 5.4 NUTRITIONAL ANALYSIS

The nutritional status of the tribe can be evaluated using internationally accepted BMI guidelines. BMI is generally considered as a good indicator of not only the nutritional status but also the socio-economic status of the population.



**Table - 5.4: Nutritional status**

Parameter	Male (n - 414) Mean	Female (n - 423) Mean
Height (in cm)	163.64	150.59
Weight (in kg)	52.04	42.6
BMI (in kg/m <sup>2</sup> )	19.3	18.7

Table 5.4 shows the mean height, weight and computed BMI. The mean height of the Lodha male is found to be 163.64 cm and that of the female are 150.59 cm while the mean weight of the male are 52.04 kg and that of the female are 42.6 kg. Thus the mean BMI of male is calculated as 19.3 kg/m<sup>2</sup> and that of the female is 18.7 kg/m<sup>2</sup>. This shows that the BMI of the females is slightly less than that of the males but both the males and females comes under the range of normal BMI (18.5-24.9).

# MANKIDIA

## 6.1 THE TRIBE

Mankidias are mostly distributed in Mayurbhanj, Kalahandi and Sundargarh. In the district of Kalahandi and Sundargarh they are named 'Mankidi' whereas in Mayurbhanj they



Measuring height of a Mankidia woman

are named 'Mankirdia'. The reasons for calling the Birhors, Mankidi or Mankidia is that they are skilled in catching monkeys. When these monkeys create havoc in the rural areas and destroy crops, fruits and vegetables, the local people employ these Birhors to catch them. The Mankidia fall into the category of hunting and gathering groups having economic relations with local peasants. They pursue a semi-nomadic way of life.

#### **6.1.1 Physical Feature**

Mankidias have a low medium stature. The average height of a male is 158 cm and that of the female is 148 cms. The complexion is brown to dark brown. Body is relatively strong. Hair on face and body is less. They resemble Kharias in many ways.



Taking weight of a Mankidia man

#### **6.1.2 Population and Distribution**

Mankidia are found in large numbers in Bihar where their population was 3464 in 1971 Census. At the same time in Orissa their number was 98 only. The population of the tribe increased to 142 during 1981 and 825 in 1991 census. In 2001 census the Mankirdias population went upto 1180 registering a growth of 43.03 percent during 1991-2001. This high growth rate is due to mixing up the Mankidi tribe with Mankirdia. Both are actually one tribe. The sex ratio is 1088 males per 1000 females.



A Mankidia village near Jasipur

### **6.1.3 Village**

The Mankidia tribe is semi nomadic. Their settlements are attached to a nearby revenue village. Most of the selected villages have 15 to 25 houses only one village has 37 households. Majority villages do not have electricity connection. However all the village in the study are approachable by road and cycle.

### **6.1.4 House and Household Articles**

The houses in the so called villages are mostly scattered. Majority houses are thatched. Very few have tiled or asbestos roof structures. Kitchen space is well within the house. The Mankidias do not have much house hold articles. Nearly 25 percent houses have a bicycle and about 12 percent keep radio for their use. Except a few cooking utensils scattered inside the room, there is no other articles.

### **6.1.5 Food and Dress**

All the Mankidias tap different sources for their livelihood, they run deficit in their food supply many a times. During scarce period they eat mango kernels, which are preserved at home for use in different times.



Discussing with Mankidia respondents

The staple food of the Mankidias is rice. With the sale proceeds of ropes and forests produce they buy their weekly requirements of rice and other things from the market. They also buy corn and minor millets in harvest seasons and eat these in addition to cooked rice. They collect various types of green leaves, mushrooms and various types of fruits such as Kendu, palm and mango from the forest for their own consumption. During their trip to forest for collection of barks, they dig out roots, fibres and also collect honey with supplement their diet.

#### **6.1.6 Religion and Festivals**

The Mankidias are polytheists. They believe that



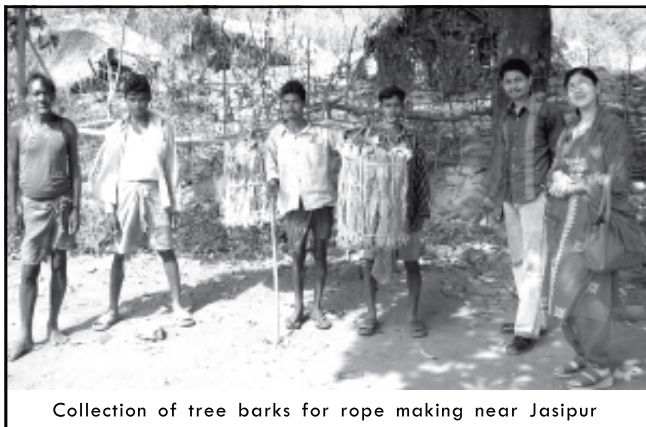
P.G. Students of Tribal Studies Department, Noth Orissa University witnessing a marriage ritual in a Mankidia village

Gods and spirits who create trouble and cause illness and death are malevolent and others who bring progress and prosperity and overall well being to the society are benevolent. Ancestral worship is conducted with the purpose of enjoying good health and for being successful in hunting and collection of forest produce without meeting any accident. In the thicket of Similipal hill ranges the abode of their two supreme deities such as Logobir and Budhimai lies. They are worshipped regularly in different months. Every clan has its own deity for which, a small leaf hut is constructed in the Tanda and food and prayers are offered to the deity on all ritual occasions.

#### **6.1.7 Economic Pursuit**

The primary occupation of the Mankidias is making ropes out of the bark of the siali creepers (Lama Bayer), which are used by the local peasantry for different agricultural and domestic purposes.

The Mankidias are skilled monkey catchers. They



use nets made of siali creepers for catching monkeys. They eat the flesh of the monkeys and sell the skin to the local skin traders for cash. A taboo is observed against the use of turmeric paste for preparing curry out of monkey's flesh. It is generally believed by them that the use of turmeric paste for preparing of the said curry will make



them unsuccessful in their monkey hunting. Sometimes, they catch birds, snares, squirrels, hare and deer with the help of traps and nets. The birds and animals caught are generally disposed of in neighbouring villages or at market places for cash.

Many Mankidias have learnt some of the techniques of agricultural operations such as weeding, transplanting and harvesting of paddy. The local people very often employ these people as labourers during agricultural season. The wage earned from this pursuit by both the sexes adds to their family income.

#### **6.1.8 Political Organisation**

Mankidias are a seminomadic primitive tribe. Now-a-days because of different government programmes they



A Mankidia village rehabilitated

have tried to settle in small hamlets. Most of the houses are temporary constructions. It is because of this the Mankidias do not have any organised political system. The village head is almost the clan head. He controls the group administrations. In most of the cases the headman solves the problems of the group. The inter group conflicts and problems are solved by different group heads and other elderly persons such as the middlemen and some elderly individuals.

### **6.1.9 Bio-Social Tradition**

#### **a) Marriage**

Marriage is very colourful event in a Mankidia's life. It takes place when a girl attains 14 to 18 years of age and a boy, 20 to 25 years. The bride price paid



Conversation with the Mankidia Respondants

to the bride's parents comprises Rs. 17/- and three pieces of clothes. The marriage is solemnized by smearing vermilion on the forehead of the bride by the groom. Prior to marriage the Mankidia boys and girls have to spend atleast two years in their respective dormitories and thereafter the marriage is contemplated. Arranged marriage is common. Beside, marriage by elopement and marriage by exchange are also practiced.

There is no specified month for holding wedding ceremonies. Generally the best time for marriage is after the monsoon when people have some savings in hand and the guests and relatives can be entertained without difficulty. On the day of marriage when the boy smears vermilion on the forehead of the girl and the marriage is solemnized, the boys and the girls of both the parties dance and sing in great joy and happiness to the tune of their drums and other musical instruments. After the marriage ceremony is



over, the bride and the groom with the party return to the latter's Tanda where the father of the groom arranges a feast for them.

**b) Family**

The Mankidia family is invariably of nuclear type. It comprises father, mother and unmarried children. In some cases either the widow mother or the widower father lives with the married son in his family. The next higher social unit is clan that regulates marriage and prohibits incestuous sexual union.

**c) Birth**

The birth of a baby is a matter of great rejoices among the Birhors. The father is addressed as Aba and the mother, as Mai. Those who are addressed as such feel proud of their parenthood whereas those having none to address them as such remain unhappy. Among them a male child is preferred to a female child because the latter leaves her parents after marriage and therefore is of limited economic utility. During pregnancy a woman observes some restrictions and is relieved of doing hard work and particularly, cooking. Most often she is not allowed to go outside or come in contact with a dead body or move near the shrine. She is forbidden to take consecrated meat. While going outside she must cover up her body completely with her clothes, lest enemies or persons with evil eye may cause harm.

After the birth of the child the whole Tanda is considered polluted for a period of 7 days and the family in which the birth took place observes pollution for 21 days.

**d) Death**

When death takes place in any Mankidia's house, other members of his family send the news to all the people of their lineage. Death occurring prior to old age is believed to be caused due to the machination of evil

spirits or sorcerers. Generally the dead body is buried in a trench. Head of the dead body is kept in southwest direction. The pollution period is observed for a period of ten days. On the tenth day Dehuri (priest) conducts purificatory rites and sprinkles water all over the Tanda and over the lineage members. In the evening a feast is arranged for the elderly persons of the Tanda, lineage members and other invitees.

The common diseases found among the Mankirdias are Malaria, fever, dysentery, cough and cold, headache and small-pox. In addition to these diseases, they suffer from chronic skin diseases like scabies, itches and eczema. Illness of any kind is believed to be caused by malevolent deities and spirits. The witches and sorcerers also cause illness through the black magic.

As soon as one falls ill, the common practice is to consult the traditional witch doctor-cum-medicine man (Raulia) who practices herbal medicine. He prescribes the dose. In case the evil spirit responsible for the malady and then prescribes the required therapy.

**Table 6.1: Total household coverage of the Mankirdias**

Blocks covered	Gram Panchayats covered	villages covered	Households covered
5	6	7	156

## **6.2 SOCIO-ECONOMIC CHARACTERISTICS**

The important characteristic features of this tribe which distinguish them from the general population are discussed in this section.

### **6.2.1 Age Group**

The demographic and health seeking behavior is more or less associated with several characteristics such as age, marital status, etc. The following table shows the age-sex composition of the Mankirdia respondents.

**Table - 6.2.1: Distribution of the population under study by age group**

Age Group in years	Male		Female	
	No	%	No	%
15-19	-	-	36	23.1
0-24	31	20.8	30	19.2
25-29	27	18.1	32	20.5
30-34	29	19.5	9	5.8
35-39	21	14.1	24	15.4
40-44	18	12.1	12	7.7
45-49	11	7.4	13	8.3
49 +	12	8.1	-	-
<b>Total</b>	<b>149</b>	<b>100</b>	<b>156</b>	<b>100</b>

Table 6.2.1 highlights the age-sex composition of this tribe from the age-group 15 to 49 years. The table shows that maximum percentage of the male respondents (20.8%) are in the age-group 20-24 years and maximum percentage of the female respondents (23.1%) are in the age-group 15-19 years. This shows that demographically it is a young population.

### **6.2.2 Marital Status**

The marital status directly or indirectly influences the fertility of the population. The data in table 6.2.2 states the marital status of the female respondents of Mankirdia tribe.

**Table - 6.2.2: Distribution of women by marital status**

	Female (EMW)			
Status	Married	Widowed	D/S	Total
Number	149	7	-	156
Percent	95.5	4.5	-	100%

### 6.2.3 Housing pattern

The houses are not arranged and the settlement pattern is irregular due to frequent change. Majority of the houses of the study area are constructed with mud wall (59.6%) and floor (100%) while the roof is Thatched (59.0%). Some small straw thatched huts with leaf and stick wall (19.2%) are also seen .This is typically observed among the Mankidias.

**Table – 6.2.3: Housing pattern of the population**

Roof material			Wall			Floor		
Category	No	%	Category	No	%	Category	No	%
Thatched	107	68.6	Mud	93	59.6	Mud	156	100
Thatched with mud roof	16	10.3	Brick + cement	33	21.2	Cement	-	-
Tile	17	10.9						
Asbestos	16	10.3	Leaf+stick	30	19.2	-	-	-
<b>Total</b>	<b>156</b>	<b>100</b>	<b>Total</b>	<b>156</b>	<b>100</b>	<b>Total</b>	<b>156</b>	<b>100</b>

### 6.2.4 Lifestyle Indicators

The life style indicators reflect the socio-economic status of this tribe. The socio-economic status directly or indirectly influences the reproductive health of the women as also the nutritional status of the tribe.

**Table – 6.2.4a: No of living rooms**

No of living rooms	Number	Percentage
1	119	76.3
2	28	3.7
> 2	Nil	
<b>Total</b>	<b>156</b>	<b>100</b>

The majority of the families have all purpose single room (96.3%).Very few of the families (3.7%) live in two-roomed houses. It is not surprising to see that there is not a single family having more than two room .

**Table – 6.2.4b: Kitchen garden/Kitchen room/Fuel used**

Kitchen garden		Kitchen room		Fuel used		
Yes	NO	Yes	NO	Coal cake	Dry stick	Wood
No %	No %	No %	No %	No %	No %	No %
125 80.1	31 19.9	6 3.8	150 96.2	2 1.3	148 94.9	6 3.8

Most of the houses of the Mankidias have a kitchen garden (80.1%) but no separate kitchen rooms (96.2%).Table 6.2.4b also reveals the fuel used for cooking by the Mankirdias. Since they live in the forest areas, they utilize the Jungle for collecting dry stick and wood. 94.9 % of this tribe depends on dry stick for fuel.



A running tubewell near a- Mankidia village, Mayurbhanj

**Table – 6.2.4c: Source of drinking water**

Stream		Well		Tube Well	
No	%	No	%	No	%
11	7.1	79	50.6	66	42.3
		<b>Total - 156</b>			

Majority of the villages have well and tube-well which shows that ground water level is relatively high in this areas. 50.6% depend upon well for drinking water while only 42.3% depend upon tube-well and 7.1% also depend upon stream for drinking water.

**Table - 6.2.4d: Transport/Electronic item**

Transport			Electronic item		
Item	No	%	Item	No	%
Cycle	42	26.9	Radio	21	13.5
Bike	-	-	Television	-	-
Nil	114	73.1	Nil	114	86.5
<b>Total</b>	<b>156</b>	<b>100</b>	<b>Total</b>	<b>156</b>	<b>100</b>

Majority of the Mankirdias (73.1%) do not possess any transport and only 26.9% possesses a cycle. The households who do not have any transport either do not feel the need of any transport or cannot afford for the same. The possession of electronic items reflects the poor economic status of the tribe. The table shows that majority of the households do not have any electronic item (86.5%).

### 6.2.5 Economy

The occupation or main earning source and the monthly family income reflects the economic status of this tribe.

**Table - 6.2.5a: Main earning source**

Male			Female		
Occupation	No	%	Occupation	No	%
Cultivator	3	1.9	Unemployed	59	37.8
Annual labour	5	3.2	Daily Labour	48	30.8
Daily labour	23	15.4	Rope making	23	14.7
Forest Products	8	5.8	Minor Forest collection	26	16.7
Minor Forest Collection	110	73.7	-	-	-
<b>Total</b>	<b>149</b>	<b>100</b>	<b>Total</b>	<b>156</b>	<b>100</b>

Table 6.2.5a reflects the main earning source of the males and the females. Majority of the males are engaged in minor forest collections (73.7%) while most of the females are unemployed (37.8%) or engaged as daily labour (30.8%). Apart from this the females collect different types of leaves such as sal and siali to make leaf cups and plates and also siali bark to make ropes.

**Table – 6.2.5b: Monthly family income**

<b>Family income (in Rupees)</b>	<b>Number</b>	<b>Percentage</b>
< 1000	125	80.1
1000-2000	31	19.9
2001-3000	-	-
>3000	-	-
<b>Total</b>	<b>156</b>	<b>100</b>
<b>Average family income – Rs 1099/-</b>		

The Mankirdias family income is reasonably low as evident from the table 6.2.5b. Majority of the households (80.1%) have family income below Rs1000/- while 19.9% households have family income between Rs (1000-2000). The average family income as calculated is Rs 1099/-.

### **6.2.6 Educational Status**

The Literary status of the Mankidia Respondents is presented in the following table

**Table - 6.2.6: Educational Status**

<b>Male</b>			<b>Female</b>		
<b>Educational status</b>	<b>No</b>	<b>%</b>	<b>Educational status</b>	<b>No</b>	<b>%</b>
Illiterate	141	94.9	Illiterate	153	98.1
Lower Primary	7	4.5	Lower Primary	2	1.3
Upper Primary	-	-	Upper Primary	-	-
Middle Exam	1	0.6	Middle Exam	-	-
High School	-	-	High School	1	0.6
+2	-	-	+2	-	-
+3	-	-	+3	-	-
<b>Total</b>	<b>149</b>	<b>100</b>	<b>Total</b>	<b>156</b>	<b>100</b>

Table 6.2.6 reflects the educational status of both the males and female respondents of this tribe. It is found that majority of the males (94.9%) and females (98.1%) are illiterate. Thus the literacy rate of this tribe is found to be very low. Comparatively the Mankirdia tribe is lowest educated having below 5% adult literacy.

## 6.3 REPRODUCTIVE HEALTH

Reproductive health behavior includes behavior related to marriage, maternal & child healthcare, family planning practices, nutritional status of the women etc.

### 6.3.1 Age at Menarche

Age at menarche of the Mankidia female is presented the following table.

**Table -6.3.1: Age at menarche of the Ever Married Women (EMW)**

Age at menarche in years	Number of EMW	Percentage
10	-	-
11	12	7.7
12	2	1.3
13	85	54.5
14	2	1.3
15	48	30.8
16	6	3.8
17	1	0.6
<b>Total</b>	<b>156</b>	<b>100</b>
<b>Mean Age at Menarche – 13.6 years</b>		

Age at menarche is one of the important biological determinants of fertility. The mean age at menarche of the Mankidias women is found to be 13.6 years. It is interesting to note that the menarcheal age of 30.8% women is 15 years and in some women the menarcheal age is still high.



### 6.3.2 Age at Marriage

Age at first marriage is shown in the following table.

**Table – 6.3.2: Age at marriage of the Ever Married Women (EMW)**

Age group in years	Number of EMW	Percentage
< 13	7	4.5
13-15	97	62.2
16-18	48	30.8
19-21	2	1.3
e" 21	2	1.3
<b>Total</b>	<b>156</b>	<b>100</b>
<b>Mean age at marriage – 15.04 years</b>		

The mean age at marriage of the Mankidias women is found to be 15.04 years. Table 6.3.2 shows that maximum percentages of women (62.2%) get married between 13 to 15 years. It is also observed that 4.5% women get married below 13 years of age which is little early.

### 6.3.3 Age at 1st Conception

Age at first conception is presented in the following table.

**Table – 6.3.3: Age at 1st conception of the Ever Married Women (EMW)**

Age group in years	Number of EMW	Percentage
< 13	2	1.3
13-15	51	32.7
16-18	90	57.7
19-21	10	6.4
e" 21	3	1.9
<b>Total</b>	<b>156</b>	<b>100</b>
<b>Mean age at 1st conception – 16.2 years</b>		

The mean age at first conception is found to be 16.2 years. This shows that the gap between age at marriage and age at first conception is about one year. Thus as observed from the table also maximum percentage of women (57.7%) conceive between 16 to 18 years.

#### **6.3.4 Age at 1st Child Birth**

Age at first child birth is shown in the following table.

**Table – 6.3.4: Age at 1st child birth of the Ever Married Women (EMW)**

<b>Age group in years</b>	<b>Number of EMW</b>	<b>Percentage</b>
<13	-	-
13-15	34	21.8
16-18	82	52.6
19-21	34	21.8
e" 21	6	3.8
<b>Total</b>	<b>156</b>	<b>100</b>
<b>Mean age at 1st child birth – 17.2 years</b>		

Table 6.3.4 reveals the mean age at first child birth of the Mankidias women which is 17.2 years. The gap between the mean age at first marriage & the mean age at first childbirth is two years which further confirms the fact that average women conceive after one year of marriage.

#### **6.3.5 Fertility Performance**

Human fertility is responsible for the biological replacement and maintenance of the human species. Table 6.3.5 presents the fertility performance of the ever married women. The total number of conceptions, uterine wastage (abortion and stillbirth) and live-births are some of the major findings of the study. Fertility performance of the ever married women is clearly presented in the following table.

**Table – 6.3.5: Fertility performance of the Ever Married Women (EMW)**

Number	Conception		Abortion		Stillbirth		Live-birth	
	No of EMW	%	No of EMW	%	No of EMW	%	No of EMW	%
0	17	10.9	148	94.9	146	93.6	20	12.8
1	15	9.6	3	1.9	5	3.2	19	12.2
2	27	17.3	3	1.9	3	1.9	25	16.0
3	25	16.0	2	1.3	2	1.3	35	22.4
4	23	14.7	-	-	-	-	14	9.0
5	24	15.4	-	-	-	-	15	9.6
6+	25	16.0	-	-	-	-	28	17.9
<b>Total</b>	<b>156</b>	<b>100</b>	<b>156</b>	<b>100</b>	<b>156</b>	<b>100</b>	<b>156</b>	<b>100</b>
Total no of	Conception—506		Abortion—15		Stillbirth—17		Livebirth—473	
Mean (per woman)	3.24		0.096		0.11		3.03	

The total number of conception of the 156 Mankidias women is found to be 506 and thus the mean conception per women is 3.24. The conceptions terminating before birth are taken as uterine wastage (Abortion + Stillbirth). In this population the uterine wastage is found to be 0.21 which is a moderate value. It is further noticed that the total number of live-births of the women is 473 and thus the mean live-births per woman is 3.03.

### **6.3.6 Antenatal Care**

Antenatal care refers to pregnancy related health care provided by a doctor or health worker in a medical facility or at home.

**Table - 6.3.6a: Antenatal checkup received**

Antenatal checkup received		Antenatal checkup not received	
Number	Percentage	Number	Percentage
66	42.3	90	57.7
Iron Folic Acid (IFA)	Tetanus Toxoid (TT)	-	-
No of EMW      %	No of EMW      %	-	-
56              35.9	65              41.7	-	-

Table 6.3.6a highlights the acceptance of the maternal care services provided by the Government. Only 42.3% women received antenatal checkup where as 57.7% did not receive any antenatal checkup. It is also observed that 35.9% of the women have taken IFA tablets and 41.7% of the women have taken at-least one TT vaccine.

**Table – 6.3.6b: Reasons for not availing antenatal checkup**

Reasons for not availing antenatal checkup	Number of EMW	Percentage
Not required	29	18.6
Elders did not allow	11	7.1
Non availability of staff	-	-
Timing of PHC not suitable	-	-
No supply of medicine	34	21.8
Any other reason	76	48.7
No response	6	3.8
<b>Total</b>	<b>156</b>	<b>100</b>

There are several reasons reported by the women for not availing any antenatal checkup. Maximum percentage of women (48.7%) reported that there are some other reasons for not availing antenatal check-up while 21.8% women reported that there is no supply of medicine and also 18.6% women reported that it is not required and pregnancy is a normal phenomenon.

### 6.3.7 Natal Care

One of the important major thrust areas of the RCH programme in India is to encourage and promote deliveries under proper hygienic conditions and under the supervision of trained health professionals.

**Table – 6.3.7a: Place of delivery**

Place of delivery	No of EMW	Percentage
Home	147	94.2
Hospital	9	5.8
<b>Total</b>	<b>156</b>	<b>100</b>

Table 6.3.7a shows that in spite of the various schemes of Government for promoting institutional delivery, 94.2% women have home deliveries and only 5.8% go for institutional delivery.

**Table – 6.3.7b: Birth assisted by Doctor/ANM/Elderly woman**

Individual attending the delivery					
Doctor		ANM/LHV		Elderly woman	
No of EMW	%	No of EMW	%	No of EMW	%
8	5.1	11	7.1	137	87.8
<b>Total No of EMW - 156</b>					

Table 6.3.7b provides information on assistance during delivery by doctors, health professionals (ANM or LHV) & elderly women. It is seen that maximum percentage of women (87.8%) are assisted by the elderly women while 7.1% receive assistance from ANM and only 5.1% avail assistance from the doctors.

### 6.3.8 Child Care

The healthy survival of the newborn baby is dependent on the health status of the mother and the feeding & weaning practices among infants which have

always been an area of special interest where child rearing practices are concerned.

**Table – 6.3.8a : Initiation of breastfeeding**

<b>Initiation of breast feeding</b>	<b>No of EMW</b>	<b>Percentage</b>
1st day	34	21.8
2nd day	69	44.2
3rd day	41	26.3
No response	12	7.7
<b>Total</b>	<b>156</b>	<b>100</b>

Table 6.3.8a presents the details of the initiation of breast feeding after childbirth. It is observed from the table that maximum percentage of women (44.2%) initiate breast feeding on the second day while 21.8% women initiate breast feeding on the first day and 26.3% women initiate breast feeding on the third day. Thus the practice of discarding colostrums is prevalent in this tribe as reflected in the table.

**Table – 6.3.8b: Duration of breast feeding & introduction of supplementary food**

<b>Duration</b>	<b>Duration of breast feeding</b>		<b>Breast feeding along with supplementary food</b>	
	<b>No of EMW</b>	<b>Percentage</b>	<b>No of EMW</b>	<b>Percentage</b>
6 month	5	3.2	8	5.1
1 year	47	30.1	17	10.9
2 year	89	57.1	131	84.0
> 2 years	15	9.6	-	-
<b>Total</b>	<b>156</b>	<b>100</b>	<b>156</b>	<b>100</b>

Table 6.3.8b highlights the duration of breast feeding and the introduction of supplementary food. It is observed that maximum percentage of women (57.1%) breast feed their babies for a period of two year while 30.1% women breast feed their babies for a period of

one year and only 3.2% women breast feed their babies for only six months. It is interesting to note that 9.6% women breast feed their babies for more than two years. Thus a prolonged duration of breast feeding is being practiced by the Mankidia women.

The introduction of supplementary food in right amount and frequency is important for appropriate infant and child feeding practices. It is noticed that normally the Mankidia women introduce supplementary food at the age of two years (84.0%) whereas 10.9% women start giving supplementary food at the age of one year and only 5.1% women start giving supplementary food at the age of six months. Thus the Mankidia women introduce supplementary food little late.

**Table – 6.3.8c: Immunization status of the children**

No of Ever Married Women (EMW)												
	At least one		BCG		DPT		Polio		Vit - A		Measles	
	No	%	No	%	No	%	No	%	No	%	No	%
Yes	76	48.7	72	46.2	76	48.7	69	44.2	67	42.9	58	37.2
NO	80	51.3	84	53.8	80	51.3	87	55.8	89	57.1	98	62.8
Total	156	100	156	100	156	100	156	100	156	100	156	100

Table 6.3.8c reveals the coverage of various vaccines (BCG, DPT, Polio, Vit-A & Measles) among the children. It is noticed that 48.7% mothers immunized their children with at-least one vaccine while 51.3% mothers do not immunize their children. The table also shows that maximum percentage of mothers avail the BCG (46.2%) and DPT (48.7%) and Polio vaccine (44.2%) while 42.9% mothers give their children the Vit-A Supplementation. Measles is received by considerably less percentage of children.

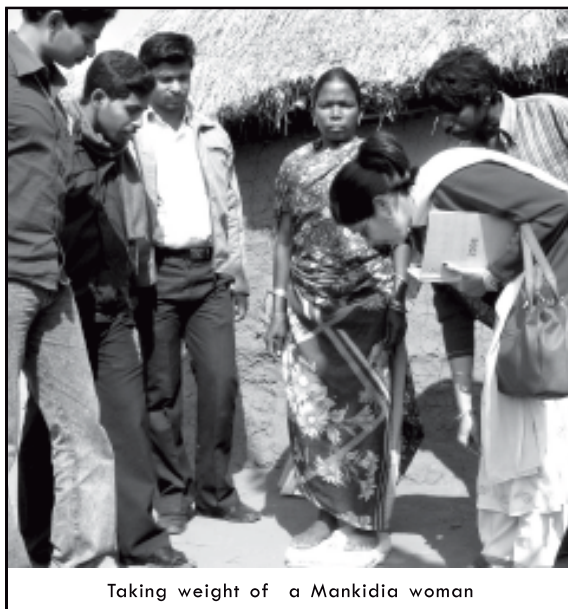
### 6.3.9 Family Planning

The use of family planning methods is of vital importance to control the fertility of the population. Of all the methods, the permanent method or the sterilization method (Vasectomy/Tubectomy) is found to be a highly accepted method.

**Table – 6.3.9a : Family welfare data (Permanent method)**

Method	Adopted		Not adopted	
	Number	Percentage	Number	Percentage
Sterilization	11	7.1	145	92.9

Table 6.3.9a highlights that 92.9% of the Mankidias do not adopt the permanent method (Vasectomy/Tubectomy) of fertility regulation while only 7.1% have accepted the sterilization method for fertility regulation.



### 6.4 NUTRITIONAL ANALYSIS

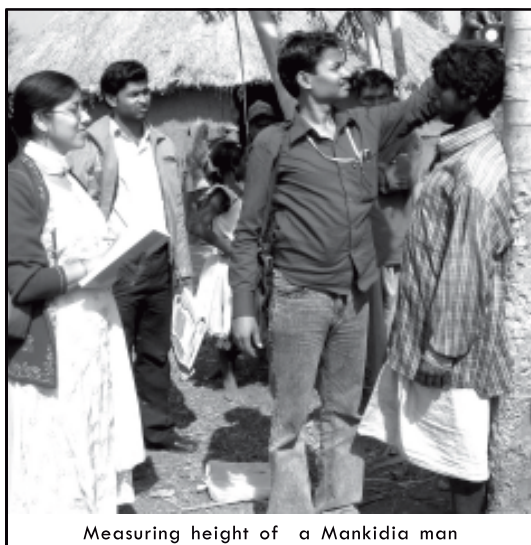
The nutritional status of the tribe can be evaluated using internationally accepted BMI guidelines. BMI is



generally considered as a good indicator of not only the nutritional status but also the socio-economic status of the population.

**Table - 6.4: Nutritional status**

	<b>Male (n – 414)</b>	<b>Female (n - 423)</b>
Parameters	Mean	Mean
Height (in cm)	158.4	148.1
Weight (in kg)	48.5	40.8
BMI (in kg/m <sup>2</sup> )	19.3	18.6



Measuring height of a Mankidia man

Table 6.4 shows the mean height, weight and computed BMI. The mean height of the Mankirdia male is found to be 158.4cm and that of the female are 148.1 cm while the mean weight of the male are 48.5 kg and that of the female are 40.8 kg. Thus the mean BMI of male is calculated as 19.3 kg/m<sup>2</sup> and that of the female is 18.6 kg/m<sup>2</sup>. This shows that the BMI of the females is slightly less than that of the males but both males and females come under the range of normal BMI (18.5-24.8).

# CONCLUSION

Reproductive health of women, though biological, is influenced by several socio-cultural norms and practices, the socio-economic status and the nutritional status of the various tribes under study. The present study reflects the economic, the educational demographic profile, the nutritional status and the various reproductive health problems of the women. Thus all possible efforts have been made for a profound study on the reproductive health, demographic profile and the nutritional status of the five primitive tribes of Northern Orissa namely –the Bhuyan, Juang, Kharia, Lodha, and Mankirdia.

## **7.1 Socioeconomic and Demographic Profile**

The woman's demographic outline is associated with several characteristics such as age, marital status, education, occupation, income, etc. The lifestyle indicator reflects the socio-economic

status of the tribes which directly or indirectly influences the reproductive health of the women as well as the nutritional status of the tribes.

It is observed that in all the five tribes (Lodha, Mankirdia, Kharia, Juang, Bhuyan) under study the houses are mostly scattered and the settlement pattern is irregular. Most of the houses are constructed with mud wall and floor and the roof is generally thatched. Majority of the houses have all purpose single room but it is observed that in the Kharias, majority of the houses do have a kitchen room also. The Mankirdias and Kharias have a kitchen garden while it is not seen in the other tribes. Mostly dry stick is used as fuel by the Lodhas and Mankirdias while the Kharias & Juang depend upon wood which they collect from the surrounding jungles. Generally it is observed that mostly the tribes (Lodha, Mankirdia, Kharia) use the well as a source of drinking water while in the Juang & Bhuyan tube-well is a major source of drinking water. Thus it is seen that pond water is not used as a source of drinking water by all the tribes but a thin percentage of Mankirdia do depend on stream water for drinking. The existence of transport & electronic items reflects the socio-economic status of the tribe. It is seen that majority of the tribes (Mankirdia, Juang & Bhuyan) do not have any transport and majority of all the tribes do not have any electronic items. This shows that financially they cannot afford for the same.

The main earning source of all the tribes is daily/ annual labour but the Mankirdias mostly depend upon minor forest collection. It is observed that beside other tribes, minor forest collection is only practiced by the Mankirdias and the Kharias. This is because these two tribes mostly reside on the periphery of the forests. Beside other factors, the average monthly family income reflects the poor socio-economic status of the tribes. The average monthly family income of the Mankirdias and the Juang are the lowest which states that they are the most poorest among the five primitive tribes under study. The present

study reveals that majority of the five primitive tribes are illiterate and the percentage of illiteracy is the highest among the Mankidias. It is also observed in all the tribes that the females are found to be more illiterate than their male counterparts. Interestingly the marital status of the Lodha is the highest ( 95.5%) and the lowest marital status is observed among the Juang women is 85.5% percent. The high prevalence of widow marriage among the Mankidias in the main cause of such a distribution.

The highest marital status among the Mankirdia tribe is resultant in highest number live births (Av 3.03 per women) and in all other tribes the average live birth per woman is slightly above 2.5. The study reveals that the Mankidias are the worst sufferers due to their very low educational and economic status which is further associated with their high fertility and semi-nomadics life.

The permanent or sterilization method (Vasectomy/ Tubectomy) is found to be highly accepted method all over the country. In the present study it is observed that the maximum percentage of Lodhas (55.0%) and Kharias (55.4%) accept the permanent method of fertility regulation or family planning while the level of acceptance is moderate in the Juang (35.1%) and Bhuyan (37.7%) and is lowest in the Mankidias (7.1%).

## **7.2 Reproductive Health**

The reproductive behavior of women or the term fertility is generally used to connote the actual reproductive performance of a woman. The main events associated with fertility are age at menarche, age at marriage, age at first conception, age at first childbirth, etc.

The age at menarche varies widely from population to population, being influenced by heredity, socio-economic condition and environmental factors. Among the five primitive tribes under study, the mean menarcheal age of the Mankidias is marginally high (13.60 years) which is due to several reasons such as their poor

socio-economic status, malnutrition, living condition, etc. Though with the onset of menarche the woman enters into her reproductive life but the actual reproductive performance starts with the age at marriage. In the present study it is a general finding that early age at menarche results in early age at marriage but it is interesting to note that in the Mankidias the mean age at marriage (15.0 years) is the lowest in spite of their marginally higher age at menarche. Women getting married at an early age naturally experience more years of reproductive span and tend to have more conceptions. This is also reflected in the Mankidias whose mean rate of conception is 3.24, which is highest in comparison to other four tribes. It is observed that in the Juang, though the mean age at marriage is low (15.6 years) but the mean age at conception (17.02 years) is high in comparison with the Mankidias whose mean age at conception is 16.20 years. This shows that the Mankidias conceive early after marriage. An attention-grabbing point at this part is that in spite of several parameters highlighted above the uterine wastage (0.21) is lowest among the Mankidias. It is to be noted that among all the tribes the uterine wastage (0.55) is highest among the Juang.

The present study also highlights the acceptance of antenatal checkup and vaccinations. It is observed that the percentage of acceptance (64.8%) is highest among the Kharias. The reasons for not availing antenatal checkup were being explored in the present study. The most common reason for not receiving antenatal care is non-requirement of antenatal checkup because it is a general belief by most of the women that pregnancy is a natural phenomenon and no specific care is required. Despite of several measures adopted by the Government for institutional delivery the practice of home delivery is still prevalent among the tribes which is highest among the Lodhas (96.2%) followed by the Mankidias (94.2%) while maximum percentage of Mankidia women (87.8%) depend upon the elderly women for delivery.

The present study highlights the details of the initiation of breast feeding after childbirth, duration of breastfeeding, introduction of supplementary food and the immunization status of the children. It is observed that the Lodhas (84.0%) start breastfeeding on the first day while the other three tribes (Mankidias, Kharias, Bhuyans) start on the second day and the Juang (60.6%) start very late on the third day. Maximum percentage of women in all the tribes practice traditional or prolonged breastfeeding up to two years, while the Lodhas are an exception who practice breast feeding up to one year (88.5%). The introduction of supplementary food is critical for the child's growth and nutritional status. In the present study it is found that maximum percentage of women of the three tribes (Kharia, Juang, Bhuyan) initiate supplementary food at the age of six months while the Lodhas (76.3%) at the age of one year and the Mankidias (84.0%) start very late at the age of two years. The coverage of various vaccines (BCG, DPT, OPV, Vit-A, Measles) by the five tribes is also being highlighted in the present study. It is observed that maximum percentage of Lodha (96.2%) mothers immunized their children with at least one vaccine followed by the Kharias (73.7%), Juang (66.2%), Mankidias (48.7%) & Bhuyan (46.7%).

### **7.3 Nutritional Status**

Nutritional status can be evaluated using internationally accepted BMI guidelines. The BMI is the most established anthropometric indicator used for the assessment of adult nutritional status. The present study is carried out to assess the nutritional status of the five primitive tribes under study. The study reflects that the BMI of the males are more than their female counterparts in all the tribes Bhuyan ( Male-18.2, Female-17.0), Juang (Male-19.4, Female-18.3), Kharia (Male-19.1, Female-18.2), Lodha (male-19.3; female-18.7), Mankidia (male-19.3 ; female-18.6).

However, both male and female of Bhuyan tribe

are below the normal range of BMI (18.5-24.9) kg./m<sup>2</sup>. So it can be safely said that the primitive Bhuyans are malnourished. Similarly the females of Juang and Kharia tribes are also underweight (malnourished). Surprisingly the females of Lodha and Mankidia tribes are marginally in normal BMI. On the otherhand, the males of Juang, Kharia, Lodha and Mankidia posses more or less similar Body Mas Index ranging from 19.1 kg/m<sup>2</sup> to 19.4kg/m<sup>2</sup>, within the normal range of BMI (18.5 kg/m<sup>2</sup>-24.9kg/m<sup>2</sup>). However all three tribes especially the females need special attention so far nutritional health is concerced.

#### **7.4 Recommendation**

The following recommendation are made for the development of reproductive health and nutrition among the Primitive Tribes.

- i) The primitive Tribes require need based programmes on Reproductive Health and Maternal Care
- ii) Programmes for women, infant and child care should be properly integrated. There should be timely monitoring of the progress of such programmes.
- iii) Mobile health units should be introduced for the interior and forest villages.
- iv) Nutritional suppliments to the expectant mothers, lactating mothers and infants be regularly provided to such primitive communties.
- v) Above all, a lot of health awarness activities are still required to make these tribes conscious of their own health and the health of their children. This would not only decrease the morbidity and mortality rates but also decrease the birth rates which consequently give rise a healthy demographic scenario among the Primitive Tribes.

## REFERENCES

- Adak D K, R K Gautam and A K Gharami. 2006a. Assessment of nutritional status through body mass index among adult male of 7 tribal populations of Maharashtra, India. *Malaysian Journal of Nutrition*. 12: 23-31.
- Adak D K, R K Gautam, S Bharati, A K Gharami, M Pal and P Bharati. 2006b. Body mass index and chronic energy deficiency of adult males of central Indian populations. *Human Biology*. 78: 201-218.
- Alam F, et al. 1998. Infant and Child Mortality Differentials in Bangladesh. *Journal of Family Welfare*. 44: 1-27.
- Arlappa N, N Balakrishna, G N Brahman and K Vijayaraghavan. 2005. Nutritional Status of the Tribal Elderly in India. *Journal of Nutrition for the Elderly*. 25: 23-39.
- Barua Indira. 1996. Menarche in North-East Indian Communities: Some Bio-Social Aspects: *South Asian Anthropologist*. 17(2): 65-72.
- Basu A. 1990. Anthropological approach to tribal health. *Tribal demography and development in North-East India* (eds), Ashis Bose, et.al. Delhi. B.R. Publishing Corp.
- Basu S K. 1990. Genetic and socio-cultural determinants of tribal health: Bastar tribal group of Madhya Pradesh. *Cultural and environmental dimension on health* (ed), Buddhadeb Choudhury. New Delhi. Inter-India Publications.
- Basu S K and A Jindal. 1990. Genetic and socio-cultural Determinants of tribal health: A primitive Kuttia Kondhs tribal group of Phulbani district, Orissa. ICMR final report, NIHFW.
- Basu A M. 1992. *Culture, the Status of Women and Demographic Behaviour*. Clarendon Press, Oxford.
- Basu S K et al. 1993a. Study of socio-cultural, demographic characteristics, maternal and child health and sexually transmitted diseases among the polyandrous Jaunsaris of Jaunsar-Bawer. *Derhadun*.
- Basu S K. 1994. The state of the art of tribal health in India. In: S Basu (Eds). *Tribal Health in India*. New Delhi. Mamak Publications Private Limited. pp: 312-349.
- Basu and Kshatriya Gautam K. 1997. Fertility and mortality trends in the Kharia tribals of Orissa. *Social Change*. March-June. 27(1&2): 114-128.
- Bharati S, Pal M, Bhattacharya B N, Bharati P. 2007a. Prevalence and causes of Chronic Energy Deficiency and obesity in Indian women (Report). *Human Biology*. Wayne State University Press.
- Bhattacharya R N and Halder S K. 2003. Determinants of Rural Fertility in West Bengal: A Micro-level Evidence. *Indian Journal Soc. Dev.* 3(2): 241-264.
- Biswas R K and Kapoor A K. 2004. Age at Menarche and Menopause among Saharia women – A Primitive tribe of Madhya Pradesh, *Anthropologist*, 6(4): 247-252.



- Bose K and F Chakrabarty. 2005. Anthropometric characteristics and nutritional status based on body mass index of adult Bathudis: A tribal population of Keonjhar district, Orissa, India. *Asia Pacific Journal of Clinical Nutrition*. 14: 80-82.
- Bose K, F Chakrabarty, S Bisai, A Khatun and H Bauri. 2006a. Body mass index and nutritional status of the adult Savar tribals of Keonjhar District, Orissa, India. *Asia Pacific Journal of Public Health*. 18: 3-7.
- Bose K, F Chakrabarty, K Mitra and S Bisai. 2006b. Nutritional status of adult Santal men in Keonjhar District, Orissa, India. *Food and Nutrition Bulletin*. 27(4): 353-356.
- Bose K, S Banerjee, S Bisai, A Mukhopadhyay and M Bhadra. 2006c. Anthropometric profile and chronic energy deficiency among adult Santal tribals of Jhargram, West Bengal, India: Comparison with other tribal populations of Eastern India. *Ecology of Food and Nutrition*. 45: 1-11.
- Bruce Judith. 1990. Fundamental elements of the quality of care: A simple framework. *Studies in family planning*. 21(2): 61-91.
- Bulliyya G, B Dwivedi, G Mallick and P K Jangid. 2004. Study on nutritional status of Dongria Kondh primitive tribes and Domb scheduled caste populations of Orissa. In: *Studies on Nutrition. Annual Report, 2003-04*. Regional Medical Research Centre. Bhubaneswar. pp: 49-54.
- Bourne B. 1972. *Pregnancy*, London: Cassell and Company Ltd.
- Caldwell J C, Reddy P H and Caldwell P. 1983. The causes of marriage change in South India. *Population Studies*, 37: 343.
- Census of India 1991 & 2001, Census operations Orissa, Bhubaneswar
- Chandrasekhar S, R S Rao, N S Nair and Kutty P R. 1998. Socio-Demographic Determinants of Antenatal Care. *Tropical Doctors*. 28: 206-209.
- Choudhuri B and Devi M. 1997. Fertility differentials in Manipur: A study on the Meiteis and the Muslims. *Journal of Human Ecology*, 8(1): 51-59.
- Daniel I L, Grummer Strawn, M Caceses and P Stupp. 1997. Maternal mortality and morbidity in El Salvador, De los Mayas a laplanificacion familiar: demografiadel istmo (Eds). Luis Rosero Bixby, Anne Pebley, Alicia Bermudez Mendez, San Jose. Costa Rica. Editorial de la Universidad de Costa Rica. Programa Centroamericana de poblacion. pp: 383-95.
- Dash N C. 1979. Fertility study of a Juang village. *The Eastern Anthropologist*. Vol 32, No 3. Lucknow.
- De Silva W I. 1998. Puerperal morbidity: A neglected area of maternal health in Sri Lanka. *Social Biology*. 45: 223-45.
- Durnin J V G A. 1994. Low body mass index, physical work capacity and physical activity levels. *European Journal of Clinical Nutrition*. 48 (Suppl. 3): S39-S44.
- Dyson T and Moore M. 1983. On Kinship structure, Female Autonomy and Demographic Behaviour in India. *Population and Development Review*. 9(1): 35-60.

- Ferro-Luzzi A, S Sette, M Franklin and W P T James. 1992. A simplified approach of assessing adult chronic deficiency. *European Journal of Clinical Nutrition*. 46: 173-186.
- Garcia M and E Kennedy. 1994. Assessing the linkage between the low body mass index and morbidity in adults: Evidence from developing countries. *European Journal of Clinical Nutrition*. 48 (Suppl-3). S90-S97.
- Ghosh A and S K Bala. 2006. Anthropometric characteristics and nutritional status of Kondh: A tribal population of Kandhamal District, Orissa, India. *Annals of Human Biology*. 33: 641-647.
- Ghosh R and P Bharati. 2006. Nutritional status of adults among Munda and Pod populations in a peri urban area of Kolkata City, India. *Asia pacific Journal of Public Health*. 18(2): 12-20.
- Gilany Abdel-Hady and Yahia Aref. 2000. Failure to register for antenatal care at Local Primary Health Care Centers. *Ann Saudi Med*. 20(3-4): 229-234.
- Jain Anrudh K, Judith Bruce and Sushil Kumar. 1992. Quality of services, programme efforts and fertility reduction. In: *Family planning programmes and fertility*. (Eds). James F Phillips and John A Ross. Oxford. Clarendon Press. pp: 202-221.
- James W P T, A Ferro-Luzzi, J C Waterlow. 1988. Definition of Chronic Energy Deficiency in adults. Report of a working party of the International Dietary Energy Consultative Group. *European Journal of Clinical Nutrition*. 42:969-981.
- James W P T, C G N Mascie-Yaylor, N G Norgon, B R Bristrain, P Shetty and P A Ferro-Luzzi. 1994. The value of arm circumference measurements in assessing chronic energy deficiency in Third World adults. *European Journal of Clinical Nutrition*. 48: 883-894.
- Jowett M. 2000. Safe motherhood interventions in low income countries: an economic justification and evidence of cost effectiveness. *Health Policy*. 53: 201-228.
- Kanitkar T and Mistri M. 2000. Status of women in India. *Indian Journal of Social Work*. Tata Institute of Social Science. Vol. 61. Issue 3.
- Kar R K. 1986. A note on health and sanitation among the tea labor in Assam. *Vanyajati* 36(2).
- Kar R K. 1990. Health and sanitation versus culture: an appraisal of tea labor in Assam. In *Cultural and environmental dimensions on health*. Edited by Buddhadeb Chaudhuri. New Delhi. Inter-India Publications.
- Kar R K. 1993. Reproductive Health Behaviour of the Nocte Women in Arunachal Pradesh. *Social Change*. Dec. 1993. 23(4): 40-52.
- Kennedy E and M Garcia. 1994. Body mass index and economic productivity. *European Journal of Clinical Nutrition*. 48 (Suppl-3). S45-S55.
- Keys A, F Fidanza, M J Karvonen et.al. 1972. Indices of relative weight and obesity. *Journal of Chronic Disease*. 25:329-343.
- Khar 1993
- Khongsdier R. 1997. The War Khasi of Meghalaya: Implications of variation in adult body dimensions. *Journal of Human Ecology*. 6: 299-305.

- Khongsdier R. 2005. BMI and morbidity in relation to body composition: a cross-sectional study of a rural community in North East India. *British Journal of Nutrition*. 93:101-107.
- Kusin J A, S Kardjati, U H Rengvist. 1994. Maternal body mass index: Functional significance during reproduction. *European Journal of Clinical Nutrition*. 48 (Suppl-3). S56-S67.
- Lee R D and D C Nieman. 2003. *Nutritional Assessment*. New York. Mc Graw Hill.
- Lohman T G, A F Roche and R Martorell. 1988. *Anthropometric Standardization Reference Manual*. Chicago. Human Kinetics Books.
- Maheo L M. 2004. *The Mao Naga Tribe of Manipur*. Mittal Publications, New Delhi.
- Maine D and A Rosenfield. 1999. The Safe Motherhood Initiative: Why has it stalled? *American Journal of Public Health*. 89: 480-482.
- Maiti S, Unisa S, Agrawal P K. 2005. Health care and health among tribal women in Jharkand: A Situational Analysis. *Stud. Tribes Tribals*. 3(1): 37-46.
- Ministry of Health and Family Welfare 2000, Govt. of India.
- Mitra A. 1985. *The Nutrition Situation in India: Nutrition and Development*. M Biswas and P Andersen (Eds). Oxford University Press, Oxford. pp: 142-162.
- Mittal P C and S Shrivastava. 2006. Diet, nutritional status and food related traditions of Oraon tribes of New Mal (West Bengal), India. *Rural and Remote Health*. 6(1): 385.
- Nair N S, R S Rao, S Chandrasekhar, D Acharya and H V Bhat. 2000. Socio Demographic and Maternal Determinants of Low Birth Weights: A Multivariate Approach. *Indian Journal of Pediatrics*. 67:9-14.
- Nanda Satyajeet. 2005a. Demography and Ethnography of Fertility Behavior: A Study of Non-Industrial Population in India. *Journal of Human Ecology*. 18(4): 301-308.
- Nanda Satyajeet. 2005b. Cultural Determinants of Human Fertility: A study of Tribal Population in Orissa. *Anthropologist*. 7(3): 221-227.
- Nanda S and Stephenson Rob. 2001. Household Environment and Infant Mortality in India: A State level Analysis with special focus to Orissa. *Journal of Human Ecology*. 12(2): 81-86.
- Nanda S and Ram F. 2003. *Teenage motherhood, Child Survival and Child Health: Evidence from National Family Health Survey, India*, Working Paper No 134, GIDR, India.
- Nanda Satyajeet. 2005b. Cultural Determinants of Human Fertility: A study of Tribal Population in Orissa. *Anthropologist*. 7(3): 221-227.
- Nayak A N and B V Babu. 2001. Utilization of services related to safe motherhood among the Schedule Caste and Schedule Tribe population of Orissa: An Overview. *South Asian Anthropologist*. 20(2): 85-88.
- Pallikadavath Saseendran, Foss Mary and Stones R William. 2004. Antenatal care: Provision & inequality in rural north India. *Social Science and Medicine*. Vol 59 (6). pp: 1147-1158.
- Park J E and K Park. 1991. *Textbook of Preventive and Social Medicine*. Jabalpur. Banarasidas Bhanot Publishers.

- Patel S. 1993. Tribal Families and Fertility at Cross Roads. Calcutta.
- Pathak K B and Ram F. 1993a. Adolescent Motherhood. *Journal of Family Welfare*. 39: 17-23.
- Prakash S and Pathmanathan G. 1992. Age at menarche and its prediction in the Welloff North-West Indian Girls. *Journal of Human Ecology*. 3(2): 133-137.
- Pryer J A. 1993. Body mass index and work disabling morbidity : Results from a Bangladesh case study. *European Journal of Clinical Nutrition*. 47: 653-657.
- Rath E A, Ray A K and Mohanty B. 1983. The Delineation of Fertility Strategies in a Tribal Population of India: The Koyas of Koraput District, Orissa. *Journal of Anthropological Research*. Fall; 39(3): 265-276.
- Ray A K and Rath E A. 1984. Demography of the Juang tribal population of Orissa. *American Journal of Physical Anthropology*. 65: 387-393.
- Ray A and A Rath. 1991. Indian tribals fertility patterns from Orissa. *Man in India (special)*. 71(1): 235-239.
- Rizvi S N A. 1986. Health practices of the Jaunsaris- A socio-cultural analysis. In *Tribal health: Socio-cultural dimensions* (ed). B Choudhuri. New Delhi: Inter-India Publications.
- Sabat K and Dash N C. 1996. Socio-economic and demographic profile of a Kondh village of Eastern Ghats, Orissa. *Man in India*. No. 2. Vol.76. Ranchi.
- Sahu S K. 1986. Social dimensions of health of tribals in India: A case study of Oraons of Orissa. In *tribal health Socio-cultural dimensions* (ed). B Chaudhuri. New Delhi: Inter-India Publications.
- Samuel L K and P S S Rao. 1992. Socio-economic differentials in mothers at risk based on pre-pregnancy weights and heights. *Indian Journal of Medical Research*. 96: 159-167.
- Sandhu J. 1996. *Sociology of Fertility*. Jaipur. Rawat Publications.
- Saxena D N. 1990. Family building, fertility and family welfare among two tribal communities of UP. In: *Demography of tribal development*. (Eds). A Bose, U P Sinha and R P Tyagi. pp: 249-269.
- Shah D, S Shroff and S Sheth. 1999. Reproductive and sexual health and safe motherhood in the developing world. *Eur. J Contracept Report Health Care*. 4: 217-228.
- Sharma V and Sharma A. 1991. Family Planning Practices among Tribals of South Rajasthan, India. *Journal of Research and Education in Indian Medicine*, 10: 5.
- Sharma V and Sharma A. 1992. Health profile of pregnant adolescents among selected tribal populations in Rajasthan, India. *Journal of Adolescent Health*, 13: 696-703.
- Sharma Vinit & Sharma Anuragini. 1993. The status of women, Fertility & Family Planning Among Tribals of South Rajasthan. *Journal of Family Welfare*. Dec 1993. 39(4). pp 20-25.
- Shetty P S and W P T James. 1994. Report of the Food and Agricultural Organization. Body Mass Index: A measure of Chronic Energy Deficiency in Adults. Food and Nutrition. Paper No 56. Rome.

- Shetty P S, M J Soares, W P T James. 1994. Body Mass Index- Its relationship to basal metabolic rates and energy requirements. *European Journal of Clinical Nutrition*. 48 (Suppl-3): S28-S38.
- Singh A K, Sinha S K, Singh S N, Jayaswal N and Jabbi M K. 1987. The myth of the healthy tribal social change. 17: 3-23.
- Singh S Jibonkumar. 2006. Ethnic Variation in Fertility Patterns among Four communities of Manipur. *Journal of Human Ecology*, 20(1): 1-9.
- Smith J B, B Lakhey, S Thapa, S Rajbhandari and S Neupane. 1996. Maternal morbidity among women admitted for delivery at a public hospital in Kathmandu. *JNMA* 34: 132-140.
- Srikantan K S. 1977. The Family Planning Programmes in the Socio-economic Context. Population Council, New York.
- Strickland S S and S T Ulijaszek. 1994. Body mass index and illness in Sarawak. *European Journal of Clinical Nutrition*. 48 (Suppl-3). S98-S109.
- Swain S, S C Jena and P Singh. 1990. Morbidity status of the Kondha tribes of Phulbani, Orissa. In *Cultural and environmental dimensions on health* (ed). B Chaudhuri. New Delhi: Inter-India Publications.
- Topal Y S and P K Samal. 2001. Causes for variation in social and economic condition among tribes of Indian Central Himalaya: A comparative study. *Man in India*. 81: 87-88.
- Upadhyay V S and Pandey G. 2003. Tribal development in India: A Critical Appraisal. Crown Publication.
- Visaria Leela and Pravin Visaria. 1992. Quality of family planning in Gujarat State, India: An exploratory analysis. In: *Managing Quality of care in population programmes*. (Eds). Anrudh K Jain. West Hartford. Kumarian Press. pp: 113-140.
- Visaria L and Visaria P. 1995. India's Population Transition. *Population Bulletin*. 50(3): 1-51.
- Weil O and H Fernandez. 1999. Safe motherhood: Is the initiative an orphan? *Journal Gynecol. Obstet. Biol. Reprod.* (Paris). 28: 205-210.
- Wolanski Napoleon, Valentin Graciela, Rojas Armando and Sinianska Anna. 1998. Age, season of menarche, family factors and adult body traits in girls from Yucatan, Mexico (Comparative Study). *Journal of Human Ecology*. 9(1): 1-17.
- World Health Organization. 1995. Physical status: the Use and Interpretation of Anthropometry. Technical Report Series no. 856. Geneva: World Health Organization.
- World Health Organization. 1998. Diet, Nutrition and the Prevention of Chronic Disease. Report of a Joint WHO/FAO Expert Consultation. WHO Technical Report Series. No 916. World Health Organization. Geneva.
- Yadav S S and Badari V S. 1997. Age at effective marriage and fertility: An analysis of data for North Kanara. *The Journal of Family Welfare*, 43(3): 61-66.
- Yagnik N D. 1994. Health development of mothers through systems of ICDS. *Indian Journal of Maternal and Child Health*. 4(1): 11-15.

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ISBN: 81-903813-3-4